DECEMBER 1988 QUARTERLY REPORT
NAS MOFFETT FIELD, CALIFORNIA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

VOLUME 6: APPENDIX I

DECEMBER 15, 1988

Prepared by:

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Knoxville, Tennessee 37923

Submitted by:

Hazardous Waste Remedial Actions Program
Martin Marietta Energy Systems, Inc.
Oak Ridge, Tennessee 37931

for:

U.S. Department of Energy
Contract DE-AC05-840R21400

Submitted to:

Department of the Navy
Western Division
Naval Facilities Engineering Command
San Bruno, California 94066-0720

DECEMBER 1988 QUARTERLY REPORT REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

THIS RECORD CONTAINS MULTIPLE VOLUMES WHICH HAVE BEEN ENTERED SEPARATELY

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APPENDIX I – BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

APPENDIX TABLE OF CONTENTS
VOLUME 6

APPENDIX I

APPENDIX TABLE OF CONTENTS
VOLUME 6
(CONTINUED)

APPENDIX TABLE OF CONTENTS
VOLUME 6
(CONTINUED)

APPENDIX TABLE OF CONTENTS
VOLUME 6
(CONTINUED)

APPENDIX TABLE OF CONTENTS
VOLUME 6
(CONTINUED)

APPENDIX I

SECTION 1.0 – SITE 1 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#4

FIELD GEOLOGIST D. H. Cox
EDITED BY S. Logan
CHECKED BY J. Hadsall
TOTAL DEPTH 212.0 ft.

COORDINATES N 343,376.6 E 1,549,580.7
DATE BEGAN 5/31/88
DATE FINISHED 6/8/88
GROUND SURFACE EL. 2.5 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SANDY CLAY; sandy loam, dark brown, dry, soft.
							5 1/2" casing installed from 0 to 5 feet.
5					CH		SILTY SANDY CLAY; blue gray, wet, stic.ky, plastic.
	#1	2/60					SANDY SILTY CLAY; slightly sandy, dark gray to dark brown, moist, plastic.
10	#2	3/60					SILTY CLAY; medium to dark gray, moderately wet, plastic, moderate organic matter.
	#3	11/60			OL		SANDY CLAY; silty, medium to dark gray, moist, stiff, abundant coarse shell fragments, whole mollusca. Trace of rounded coarse sand.
15							SILTY CLAY; medium to dark brown, stiff, moderately plastic.
	#4	42/60					SANDY CLAY; light to medium brown, moist, stiff to hard, non-plastic, sand; fine to coarse, subangular, poorly sorted.
20							
	#5	4/60					SILTY CLAY; light to medium brown, moderately dry, stiff, interbedded with sand; fine to coarse, subrounded, poorly sorted.
25							
	#6	4/60			CL		SANDY CLAY; medium brown, moderately dry, stiff, medium to coarse rock fragments (gravel).
30							
	#7	NO REC.					Coarse angular sand and gravel over shaker.
35							
	#8	7/60					
40							
	#9	8/60			SW		SAND; medium to dark gray-brown, wet, fine to medium, moderate to well sorted.
45							
	#10	10/60					SANDY CLAY; light to medium brown, moist, stiff.
50							SANDY CLAY; medium to dark gray, moist, stiff, slightly plastic, minor coarse gravels.
	#11	7/60					SILTY SANDY CLAY; medium brown, moist, stiff.
55							
	#12	20/60			CL		SILTY CLAY; medium gray to medium brown, moist, stiff, slightly plastic. SANDY CLAY, medium gray to medium brown, moist, stiff, slightly plastic, minor coarse gravel.
60							
	#13	13/60					SILTY CLAY, medium brown, moist, stiff, slightly plastic.
65							
	#14	0/60					
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB4.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#4

FIELD GEOLOGIST D. H. Cox
EDITED BY S. Logan
CHECKED BY J. Hadsall
TOTAL DEPTH 212.0 ft.
COORDINATES N 343,378.8 E 1,549,580.7
DATE BEGAN 5/31/88
DATE FINISHED 6/8/88
GROUND SURFACE EL. 2.5 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	0/60					SILTY CLAY; medium brown, moist, stiff, slightly plastic.
75	#15	0/60					
80	#16	6/60					SANDY CLAY; medium gray brown, moist, stiff, moderately plastic.
85	#17	9/60					
90	#18	6/60					SILTY CLAY; medium gray, moist, stiff, moderately plastic.
95	#19	8/60					
100	#20	6/60					SANDY CLAY; medium brown, moist, stiff, slightly plastic.
105	#21	7/60			CL		SILTY CLAY, medium gray, moist, stiff, slightly plastic, homogeneous.
110	#22	10/60					
115	#23	9/60					
120	#24	12/60					
125	#25	8/60					
130	#26	46/60					SANDY SILTY CLAY; medium to dark gray interbedded with medium brown clay, dry to moist, stiff, slightly plastic, homogeneous. SILTY CLAY; medium to dark gray, dry, very stiff, slightly plastic, homogeneous.
135	#27	9/60					
140	#28	18/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB4.DWG

IT ...Creating a Safer Tomorrow

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BORING NO. GB#4

FIELD GEOLOGIST D. H. Cox
EDITED BY S. Logan
CHECKED BY J. Hadsall
TOTAL DEPTH 212.0 ft.
COORDINATES N 343,376.8 E 1,549,580.7
DATE BEGAN 5/31/88
DATE FINISHED 6/8/88
GROUND SURFACE EL. 2.5 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	18/60			CL		SILTY CLAY; medium to dark gray, dry, stiff, slightly plastic, homogeneous.
145	#29	13/60					
150	#30	31/60					SANDY CLAY; medium brown, pred. dry, stiff, slightly plastic, homogeneous.
155	#31	40/60					SILTY CLAY; blue gray, dry, stiff, slightly plastic.
160	#32	32/60					
165	#33	28/60					
170	#34	50/60					SILTY CLAY; medium to dark gray, dry, stiff, non-plastic, homogeneous.
175	#35	49/60					SANDY CLAY; medium to dark gray, blue gray, dry, stiff, abundant shell fragments.
180	#36	44/60					
185	#37	0/60			CL-GC		GRAVELLY SANDY SILTY CLAY; medium to dark blue gray, medium stiff, slightly plastic, interbedded with coarse angular gravels. Driller reports hard drilling, "chattering", possibly gravels.
190	#38	18/60					
195	#39	0/60					Sands and gravel over shaker.
200	#40	7/60			CL		SANDY CLAY; medium gray, moist, stiff, slightly plastic, associated coarse angular gravels.
205	#41	2/60					SANDY CLAY; medium gray brown, moist, stiff, slightly plastic.
210	#42	0/60					Sands and gravel over shaker.

(TOTAL DEPTH 212 FEET)
4-1/2" diameter boring

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB4.DWG

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BORING NO. GB#5

FIELD ENGINEER D. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet
COORDINATES N 342,514.2 E 1,548,942.5
DATE BEGAN 6/20/88
DATE FINISHED 8/22/88
GROUND SURFACE EL. 0.2 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					ML		LOAM; light brown, dry, silty, fine sand, non plastic. 5 1/2 " casing installed from 0 to 6 1/2 feet.
5	#1	0/60			CL		CLAY; dark gray, soft, sticky.
10	#2	2/60			CH		SANDY CLAY; dark gray to gray brown, wet, soft, with sandstone fragments, light brown.
15	#3	11/60					SILTY CLAY; dark gray, wet, soft, sticky, plastic, with occasional shell fragments.
20	#4	12/60					SANDY CLAY; light gray, moist, soft to stiff, sticky, plastic.
25	#5	10/60					SILTY CLAY; medium brown to brown gray, moist, stiff, plastic.
30	#6	9/60			CL		SANDY CLAY; medium brown to brown gray, moist to dry, stiff, slightly plastic.
35	#7	9/60					SILTY CLAY; light to medium brown, dry, stiff, slightly plastic, increasing sand.
40	#8	0/60			GW		Shaker sample: sand; coarse, subangular to subround, moderately well sorted quartz, with sandstone; medium brown and dark gray fragments, rounded coarse gravel.
45	#9	0/60					
50	#10	0/60					
55	#11	0/60					
60	#12	0/60					Shaker sample: sand; medium to coarse, subangular to subround, moderately sorted quartz, with light brown to dark gray, siltstone and sandstone fragments.
65	#13	0/60					
70	#14	7/60			CH		SILTY CLAY; medium gray brown, moist, stiff, plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB5.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#5

FIELD ENGINEER D. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 342,514.2 E 1,548,942.5
DATE BEGAN 6/20/88
DATE FINISHED 6/22/88
GROUND SURFACE EL. 0.2 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	7/60			CL		SILTY CLAY; light brown, gray brown, moderately dry, stiff, slightly plastic with sand; medium–coarse, subangular to subround, moderately sorted quartz, and gravel.
75	#15	1/60					
80	#16	15/60					SILTY CLAY; medium gray, moderately dry, stiff, slightly plastic.
85	#17	10/60			CH		SANDY CLAY; medium gray brown, moist, stiff, plastic.
90	#18	10/60					
95	#19	42/60			CL		SILTY CLAY; medium–dark gray, moderately dry, stiff, plastic. SILTY CLAY; medium gray to brown gray, dry, stiff, brittle, non–plastic.
100	#20	22/60					
105	#21	42/60					
110	#22	15/60					
115	#23	40/60					SILTY CLAY; minor sand, medium gray to brown gray, dry, stiff, brittle, non–plastic.
120	#24	56/60					
125	#25	60/60					
130	#26	29/60					SILTY CLAY; dark gray, moderately dry, stiff, sticky, slightly plastic.
135	#27	60/60					SILTY CLAY; dark gray, dry, stiff, brittle, non–plastic.
140	#28	56/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB5.DWG

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BORING NO. GB#5

FIELD ENGINEER D. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 342,514.2 E 1,548,942.5
DATE BEGAN 6/20/88
DATE FINISHED 6/22/88
GROUND SURFACE EL. 0.2 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	56/60			CL		SILTY CLAY; medium to dark gray, dry, stiff, non to slightly plastic.
145	#29	26/60					
150	#30	60/60		3.0			SILTY CLAY; dark gray, dry, very stiff, brittle, non-plastic.
155	#31	60/60		1.5	CH		SILTY CLAY; gray brown, soft, moist, plastic.
160	#32	60/60		3.5	CL		SILTY CLAY; dark gray, dry, stiff, non-plastic.
165	#33	30/60		3.0			
170	#34	60/60		3.0			SILTY CLAY; light to medium gray, moderately dry, stiff, non to slightly plastic.
175	#35	27/60		1.8			CLAY/SILTY CLAY; dark gray, dry, stiff, brittle, non to slightly plastic.
180	#36	7/60					SANDY SILTY CLAY; minor sand, dark gray, moist, stiff, slightly plastic, shell fragments, incr. sand.
185	#37	27/60		2.5	CH		SANDY CLAY; brown gray, moist to wet, very stiff, plastic, sand; fine to coarse, subangular subround, moderately to poorly sorted quartz with siltstone and sandstone fragments, shell fragments..
190	#38	34/60		3.0	CL		SANDY CLAY; brown to gray brown, predominantly dry, very stiff, non to slightly plastic..
195	#39	49/60		4.0			SILTY CLAY; minor sand, brown to gray brown, moist to dry, very stiff-hard, slightly plastic to non-plastic..
200	#40	24/60		2.0-3.5			SANDY CLAY; brown to gray brown, moist, very stiff, slightly plastic.
205	#41	22/60		1.5			SANDY CLAY; gray to brown gray, moist, stiff, slightly plastic with sand; coarse, angular to subangular, moderately sorted quartz and angular gravels.
210	#42	19/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB5.DWG

IT ...Creating a Safer Tomorrow

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BORING NO. GB#5

FIELD ENGINEER D. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 342,514.2, E 1,548,942.5
DATE BEGAN 6/20/88
DATE FINISHED 8/22/88
GROUND SURFACE EL. 0.2 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	19/60		4.0	CL		SILTY CLAY; dark gray, predominantly dry, very stiff-hard,, brittle, slightly to non-plastic.
215	#43	35/60		3.0			
220	#44	54/60		3.0-4.0			
225	#45	26/60		3.0			SILTY CLAY; light to medium gray, predominantly dry, very , stiff, slightly plastic.
230	#46	28/60		3.0			
235	#47	60/60		3.5-4.5			
240	#48	52/60		3.5-4.0			
245	#49	19/60		2.5			SANDY CLAY; medium gray, moist to wet, stiff, slightly plastic.
250	#50	10/60		2.5			
255							TOTAL DEPTH 253 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB5.DWG

IT ...Creating a Safer Tomorrow

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BORING NO. GB#6

FIELD ENGINEER D.H. Cox
EDITED BY E. Wessner
CHECKED BY R. Sorbo
TOTAL DEPTH 153.0 ft.
COORDINATES N 342,233.0 E 1,549,873.7
DATE BEGAN 6-10-88
DATE FINISHED 6-14-88
GROUND SURFACE EL. 3.0 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (PSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SANDY CLAY; sandy loam, dark brown, dry, soft. 5 1/2" casing installed from 0 to 8 feet.
5					CH		SANDY CLAY; blue gray to dark brown, moist, plastic. SILTY CLAY; dark gray to dark brown, moist, plastic.
10	#1	0/60			SC-GC		CLAYEY SAND; gray, wet, soft, fine to coarse, subround to angular, moderate to poorly sorted quartz, interbedded with assorted angular gravels.
15	#2	0/60					
20	#3	0/60					CLAYEY SAND; dark gray, soft, sticky.
25	#4	8/60			CL		SANDY CLAY; light brown, soft, sticky.
					GC		SANDY CLAYEY GRAVEL; medium gray to blue-gray, moist, soft, with sand; fine to coarse, subangular to subround, moderate to poorly sorted quartz.
30	#5	25/60			CL		GRAVELLY SANDY CLAY; light brown, moist, soft, sticky, slightly plastic, abundant coarse sand and assorted gravels. SANDY CLAY; light gray to light brown, moist, stiff, slightly plastic.
35	#6	16/60					
40	#7	21/60					GRAVELLY SANDY CLAY; brown gray, moist, stiff, slightly plastic, interbedded with assorted coarse sands and angular gravels.
45	#8	4/60					
50	#9	4/60					
55	#10	2/60			SC		CLAYEY SAND; medium brown, wet, soft, interbedded with minor coarse angular gravels, sands are fine to coarse, subangular to subround, moderate to poorly sorted.
60	#11	1/60					
65	#12	0/60			CL		SANDY CLAY; fine to coarse, subangular to subround, moderate to poorly sorted quartz with siltstone and sandstone grains assorted, predominately dark gray in clay; medium to dark gray, wet, soft. Also fine to medium fragments of chert, feldspar.
70	#13	0/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB6.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
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BORING NO. GB#6

FIELD ENGINEER D.H. Cox
EDITED BY E. Wessner
CHECKED BY R. Sorbo
TOTAL DEPTH 153.0 ft.
COORDINATES N 342,233.0 E 1,549,873.7
DATE BEGAN 6-10-88
DATE FINISHED 6-14-88
GROUND SURFACE EL. 3.0 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	0/60			CL		SANDY CLAY; fine to coarse, subangular to subround, moderate to poorly sorted quartz with siltstone and sandstone grains associated, predominately dark gray. In clay; medium to dark gray, soft, wet. Also fine to medium fragments of chert, feldspar.
75	#14	0/60					
80	#15	0/60			GC		SANDY CLAYEY GRAVEL; dark gray, wet, soft, organic matter; sticks, and sand; fine grain, well sorted quartz with assorted fragments of medium gray sandstone and siltstone.
85	#16	20/60			CL		SILTY CLAY; medium gray to gray-green, moist, stiff, slightly plastic.
90	#17	20/60					
95	#18	7/60					SANDY CLAY; medium gray brown, soft to moist, stiff slightly plastic, moist.
100	#19	24/60			SC		CLAYEY SAND, medium gray to gray brown, moist, stiff slightly plastic.
105	#20	12/60					
110	#21	42/60			CL		SANDY CLAY; medium gray to green gray, flecks of brown interbedded, moist, stiff, slightly plastic.
115	#22	20/60					SANDY CLAY; light to medium brown, stiff, slightly plastic.
120	#23	16/60					SANDY CLAY; medium gray to gray brown, moist, stiff slightly plastic.
125	#24	43/60					SANDY CLAY; interbedded with coarse sands and assorted angular gravels, moisture content increasing.
130	#25	0/60					SILTY CLAY; blue gray with browns, moderately dry, stiff slightly plastic.
135	#26	59/60					
140	#27	40/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB6.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#6

FIELD ENGINEER D.H. Cox
EDITED BY E. Wessner
CHECKED BY R. Sorbo
TOTAL DEPTH 153.0 ft.

COORDINATES N 342,233.0 E 1,549,873.7
DATE BEGAN 6-10-88
DATE FINISHED 6-14-88
GROUND SURFACE EL. 3.0 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#27	40/60			CL		SILTY CLAY; blue gray with browns, moderately dry, stiff, slightly plastic. Color is predominantly blue-gray.
145	#28	5/60					
150	#29	53/60					
155							TOTAL DEPTH 153.0 FEET 4-1/2" diameter boring
160							
165							
170							
175							
180							
185							
190							
195							
200							
205							
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB6.DWG

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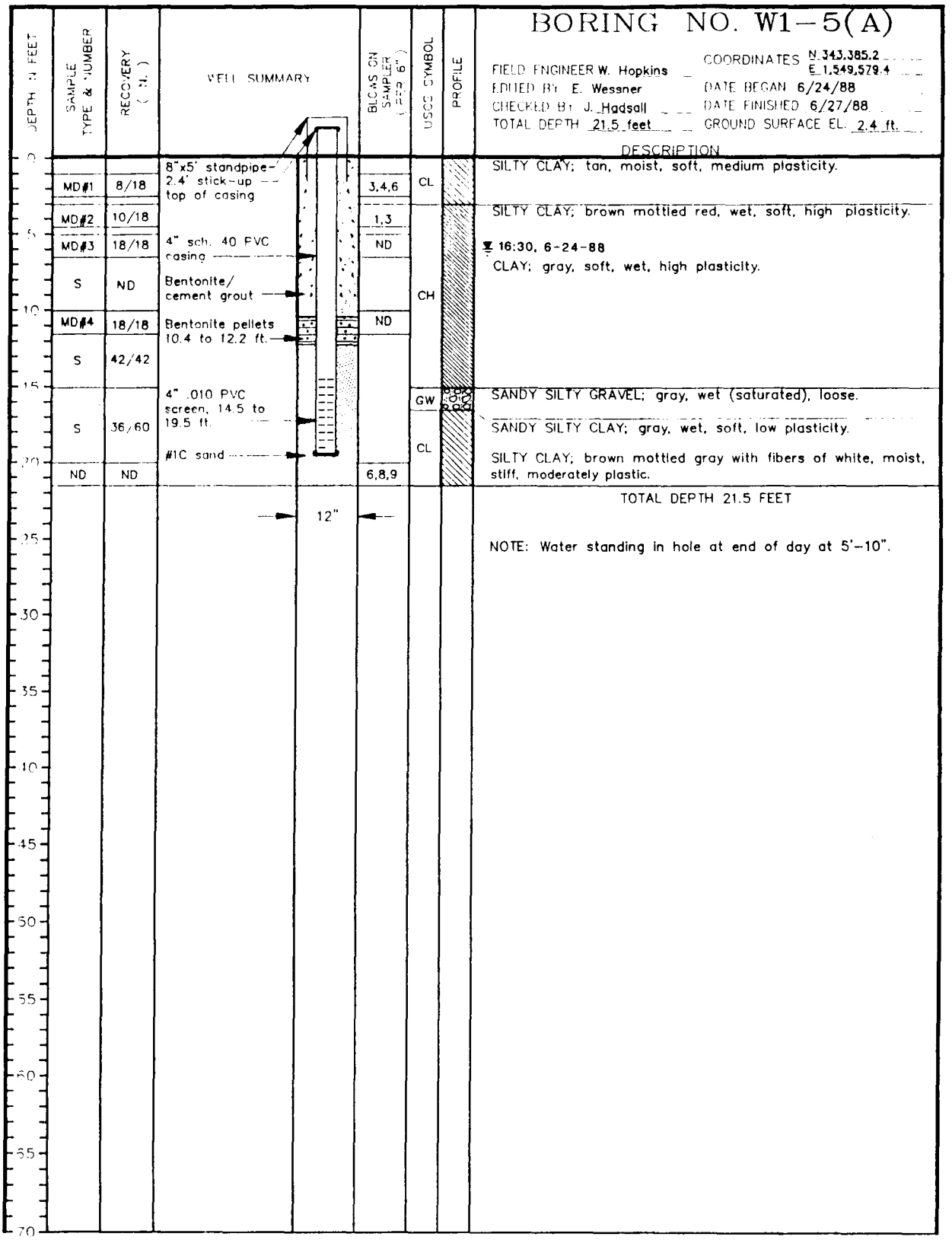
BORING NO. W1-5(A)

FIELD ENGINEER W. Hopkins
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 21.5 feet

COORDINATES N 343,385.2 E 1,549,579.4
DATE BEGAN 6/24/88
DATE FINISHED 6/27/88
GROUND SURFACE EL. 2.4 ft.



DESCRIPTION

SILTY CLAY; tan, moist, soft, medium plasticity.

SILTY CLAY; brown mottled red, wet, soft, high plasticity.

▼ 16:30, 6-24-88

CLAY; gray, soft, wet, high plasticity.

SANDY SILTY GRAVEL; gray, wet (saturated), loose.

SANDY SILTY CLAY; gray, wet, soft, low plasticity.

SILTY CLAY; brown mottled gray with fibers of white, moist, stiff, moderately plastic.

TOTAL DEPTH 21.5 FEET

NOTE: Water standing in hole at end of day at 5'-10".

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE MF-W1-5A.DWG

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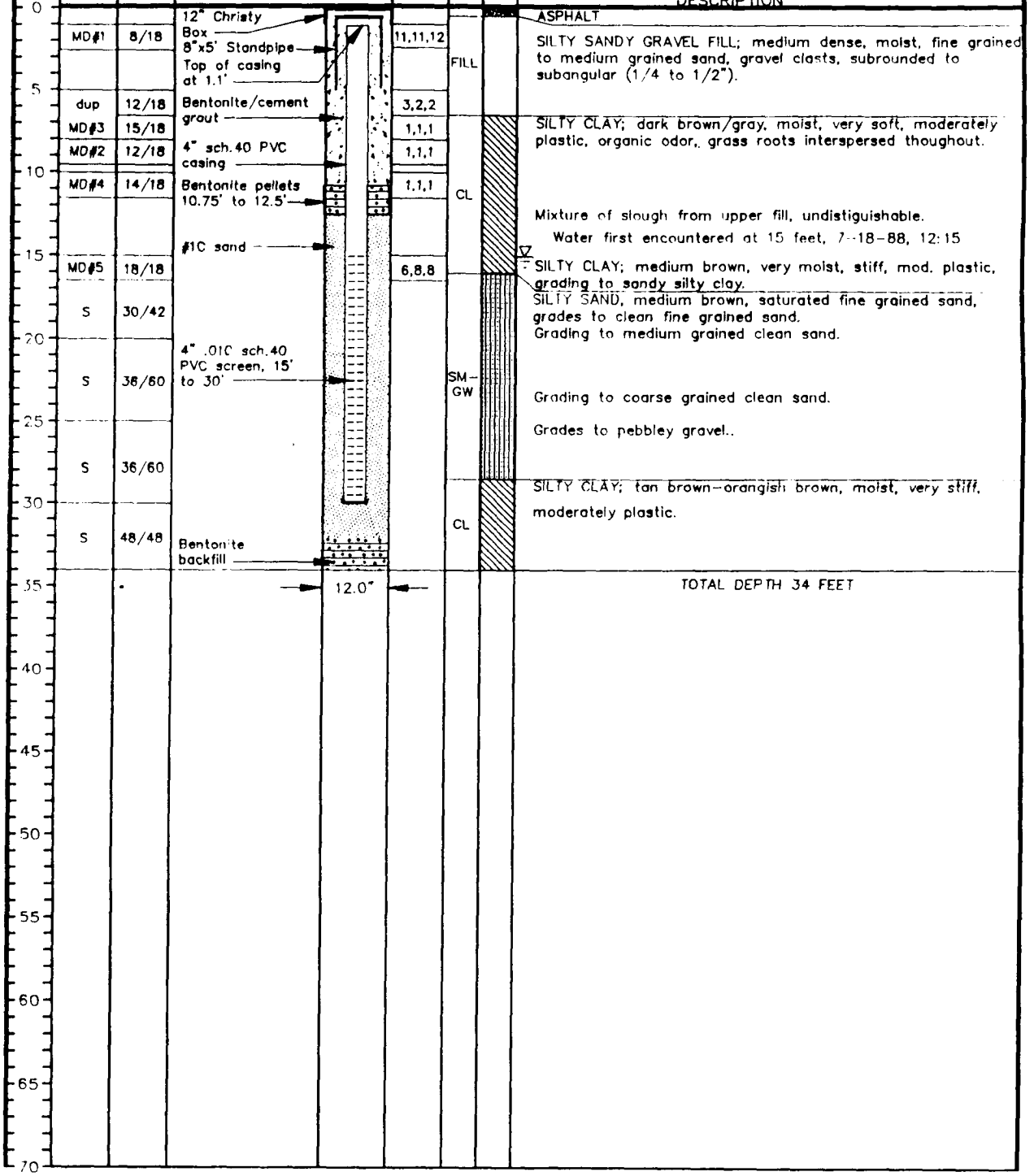
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W1-6(A)

FIELD ENGINEER J. Hadsall
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 34 ft.

COORDINATES N 342,228.3 E 1,549,584.4
DATE BEGAN 7-18-88
DATE FINISHED 7-18-88
GROUND SURFACE EL. 1.2 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME-55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W16A.DWG

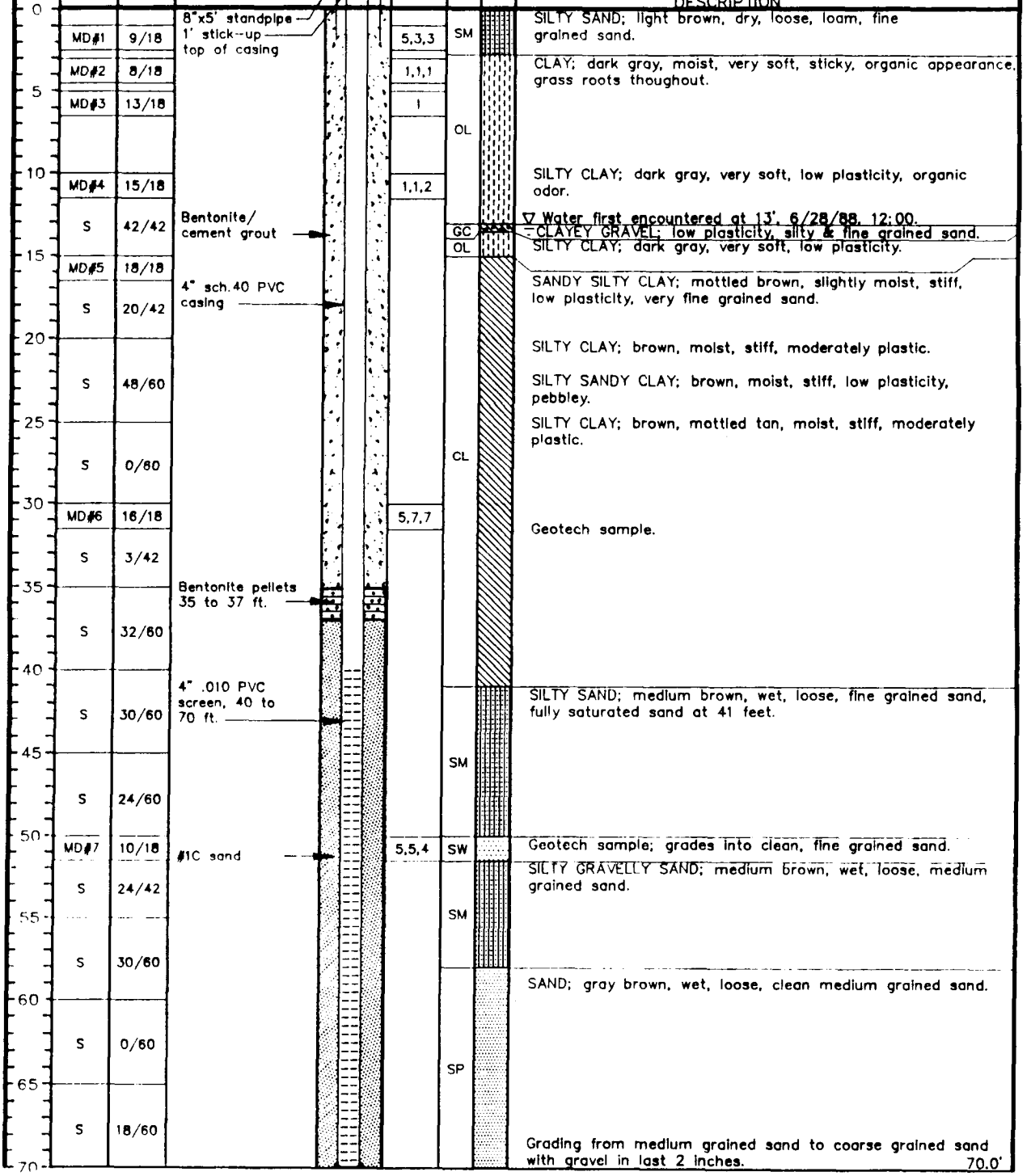
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W1-7(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 75 ft.

COORDINATES N 342,492.2 E 1,548,950.5
DATE BEGAN 6/28/88
DATE FINISHED 6/29/88
GROUND SURFACE EL.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Hollow Stem Auger - CME 55

PROJECT NO. 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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FOR EXPLANATION OF SYMBOLS AND TERMS

AutoCAD FILE: MF-W17A.DWG

BORING NO. W1-7(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 75 ft.

COORDINATES N 342,492.2, E 1,548,950.5
DATE BEGAN 6/28/88
DATE FINISHED 6/29/88
GROUND SURFACE EL. 2.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	S	54/60	Bentonite slurry used to backfill clay aquitard		CL		CLAY; medium brown, moist, stiff, moderately plastic.
75			12"				TOTAL DEPTH 75 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: Hollow Stem Auger -- CME 55

PROJECT NO. 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W17A.DWG

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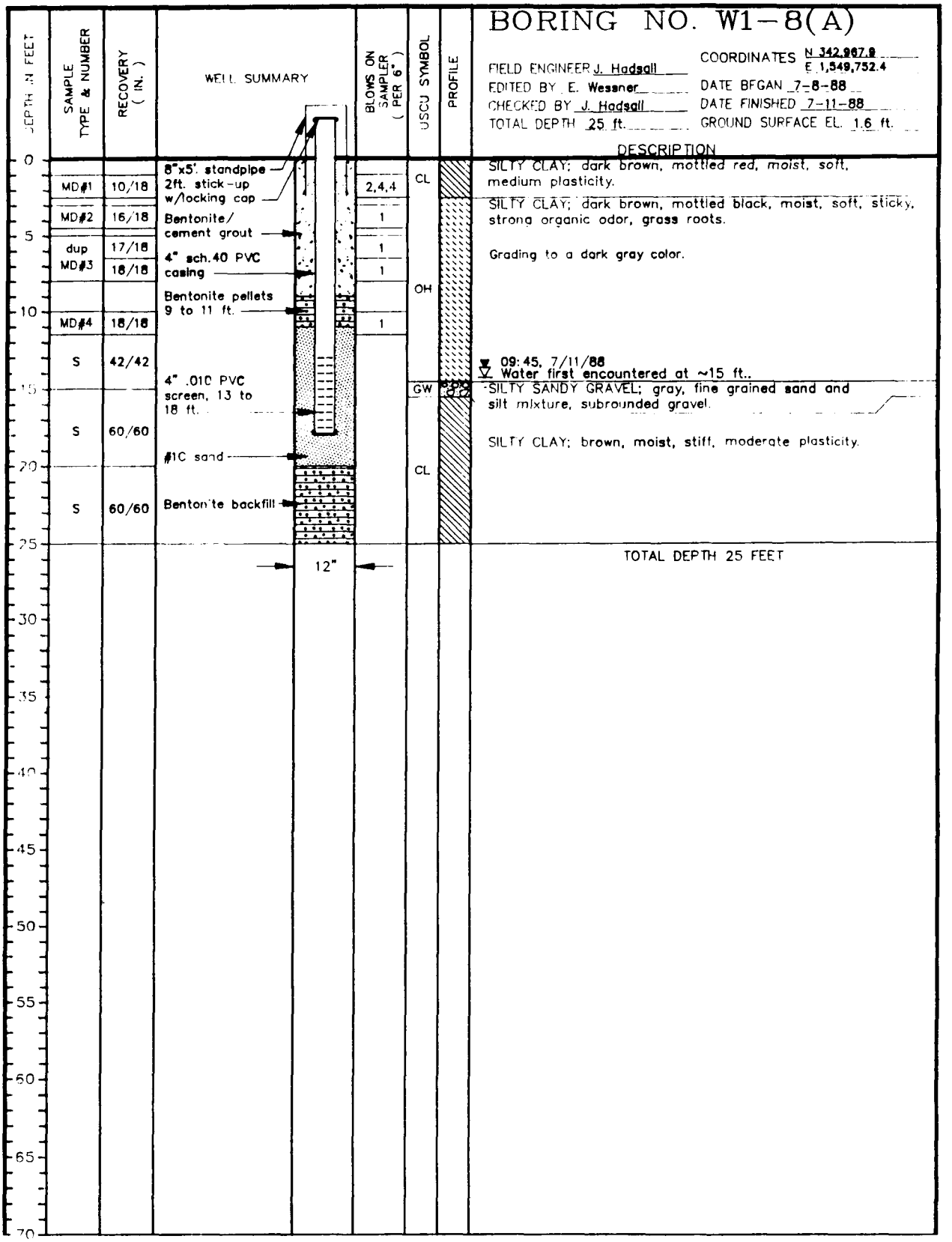
BORING NO. W1-8(A)

FIELD ENGINEER J. Hadsall
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 25 ft.

COORDINATES N 342,967.9 E 1,549,752.4
DATE BEGAN 7-8-88
DATE FINISHED 7-11-88
GROUND SURFACE EL. 1.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow-Stem Auger

PROJECT NO. 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W18A.DWG

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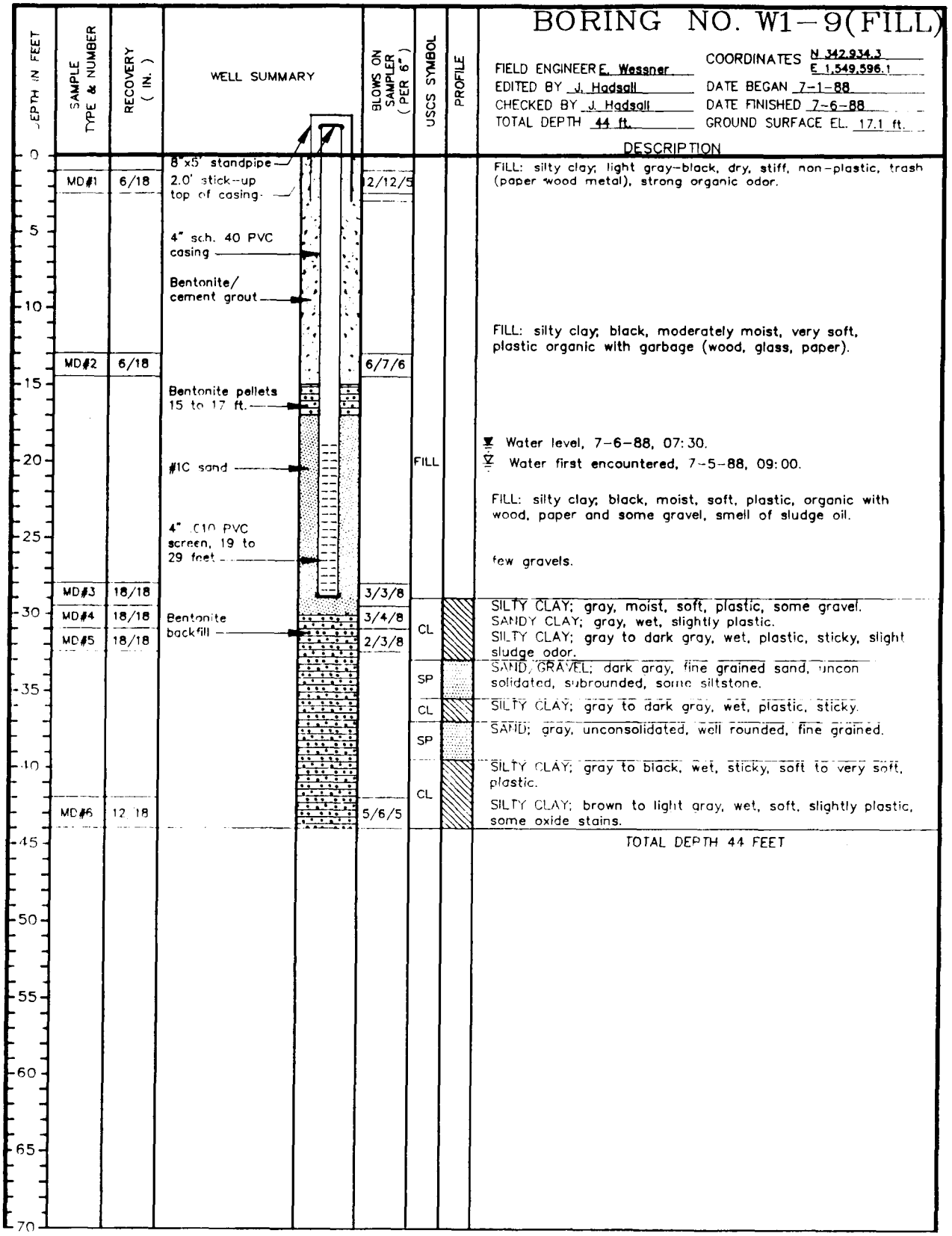
BORING NO. W1-9(FILL)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 44 ft.

COORDINATES N 342,934.3 E 1,549,596.1
DATE BEGAN 7-1-88
DATE FINISHED 7-6-88
GROUND SURFACE EL. 17.1 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary, SS16

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W1-9.DWG

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BORING NO. W1-10(F)
(ABANDONED)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 13 ft.

COORDINATES N 342,387.8 E 1,549,542
DATE BEGAN 7/6/88
DATE FINISHED 7/6/88
GROUND SURFACE EL. 0.9 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0							SILTY CLAY; brown to light brown, dry to slightly moist, non-plastic.
	MD#1	6/18		3,3,8	CL		SILTY CLAY; gray, moderately moist, soft, plastic to mod. plastic.
	MD#2	6/18		1,2,3			
5	MD#3	12/18		1,1,1	OH		SILTY CLAY/CLAY; gray, moist, soft, plastic, organic (weeds).
					OL		CLAY/SILTY CLAY; gray, wet, soft to very soft, sticky, low plasticity, few organics, strong organic odor.
10	MD#4	18/18		0,1,1			
	MD#5	18/18		4,5,11			Borehole abandoned @ 13 ft. No well installed.
15							
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW1-10F.DWG

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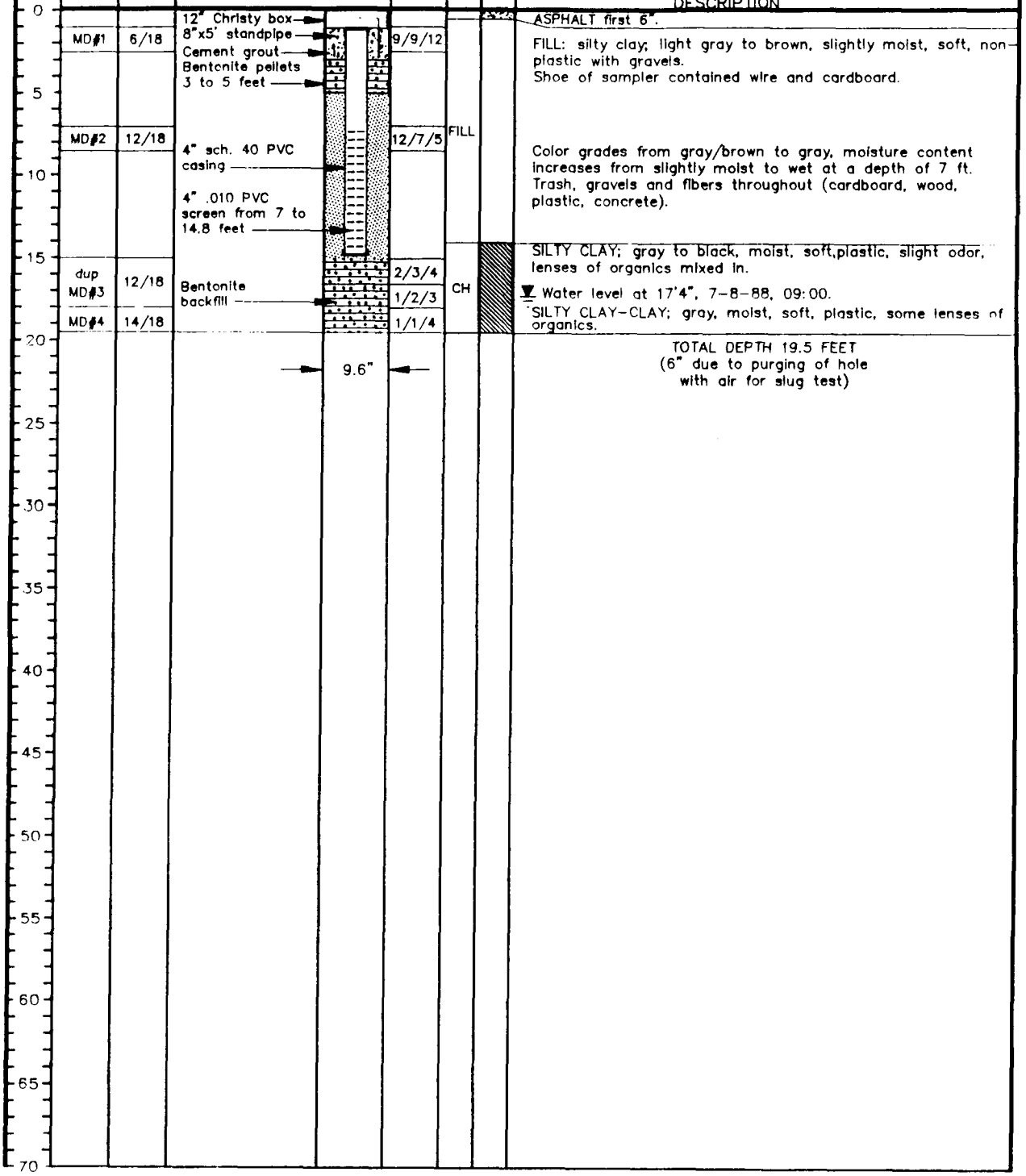
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W1-10(F)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 19.5 ft.

COORDINATES N 342,552.4 E 1,549,695.1
DATE BEGAN 7-7-88
DATE FINISHED 7-8-88
GROUND SURFACE EL. 7.3 ft.



TOTAL DEPTH 19.5 FEET
(6" due to purging of hole with air for slug test)

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W1-10.DWG

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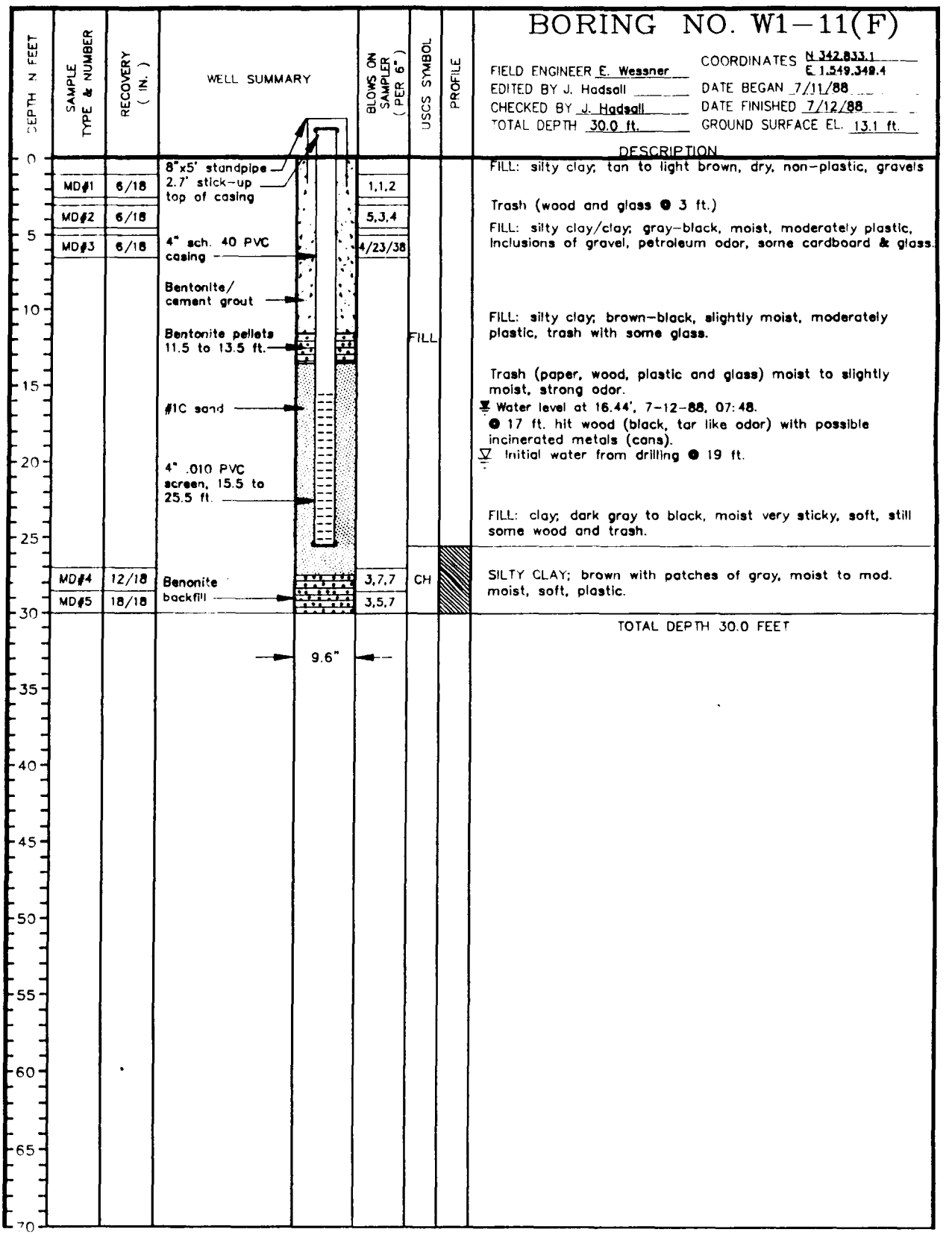
BORING NO. W1-11(F)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 30.0 ft.

COORDINATES N 342,833.1 E 1,549,349.4
DATE BEGAN 7/11/88
DATE FINISHED 7/12/88
GROUND SURFACE EL. 13.1 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W1-11.DWG

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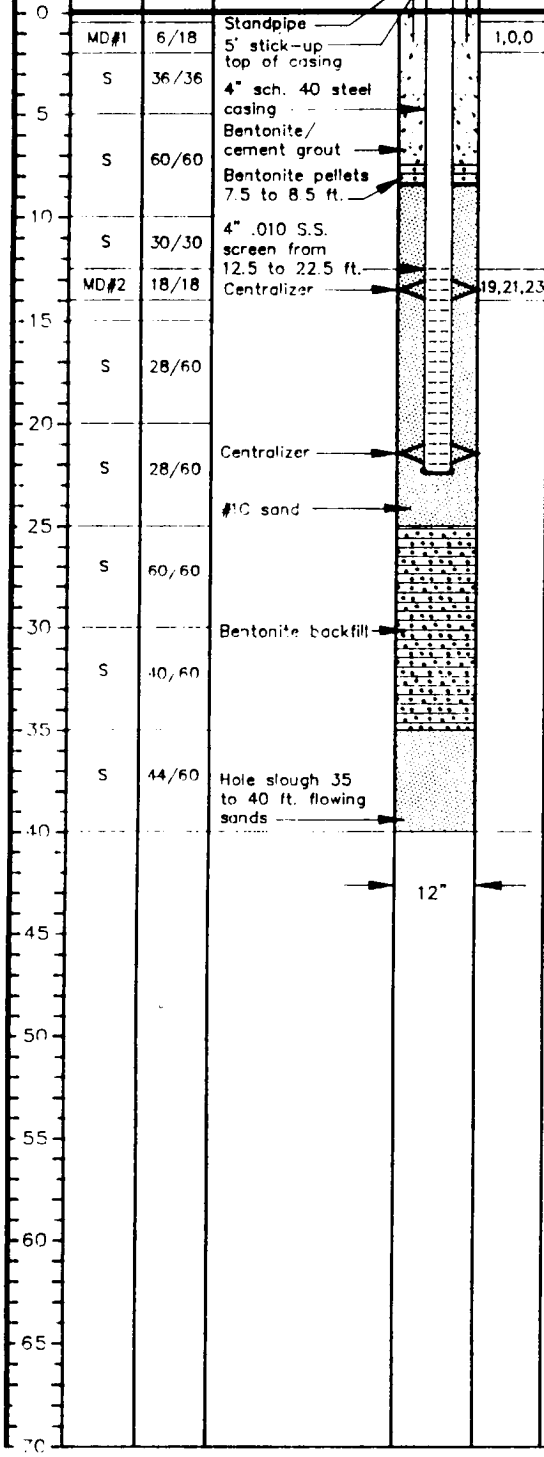
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W1-12(A)

FIELD GEOLOGIST S. Logan
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 40.0 feet

COORDINATES N 342,976.1 E 1,549,346.4
DATE BEGAN 8/30/88
DATE FINISHED 9/2/88
GROUND SURFACE EL. -3.0 ft.



DESCRIPTION

SILTY CLAY; top soil, significant decomposed organic fraction.

CLAY; with trace of silts, dark gray, very extremely soft, wet high plasticity, highly decomposed organic fraction, sulfurous odor, organic fraction decreases with depth. Homogeneous

CLAYEY SAND; coarse, dk gry & blk, wet, soft, non-plastic.

SILTY CLAY; light and dark gray, very moist, soft, high plasticity.

GRAVELLY SANDY CLAY, dark gray, very moist, soft, medium to high plasticity, sand is uniformly fine grained, trace of coarse sands, gravels. ▽

GRAVELLY SILTY SANDS, medium gray and black, hard, wet, non-plastic, sand grades from fine at 12.5' to medium and coarse with depth. Increasing gravel fraction with depth, trace of shell fragments, fairly clean.

Grades to finer sands at 17 ft. saturated
Grades to silty sand (coarse to fine) at 19 ft.
Grades to cleaner, coarser sands with trace of gravel and shell fragments.

Grades to coarse silty sands.

Very fine silty sand, moderate brown, firm, moist.

Poorly sorted sands, moderate to grayish brown, soft to firm, wet saturated, uniformly fine grained. Clean.

Grades to very fine silty sand, moderately stiff, brown, moist uniformly fine and very fine grained.

TOTAL DEPTH 40.0 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: TR-4000 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW1-12A.DWG

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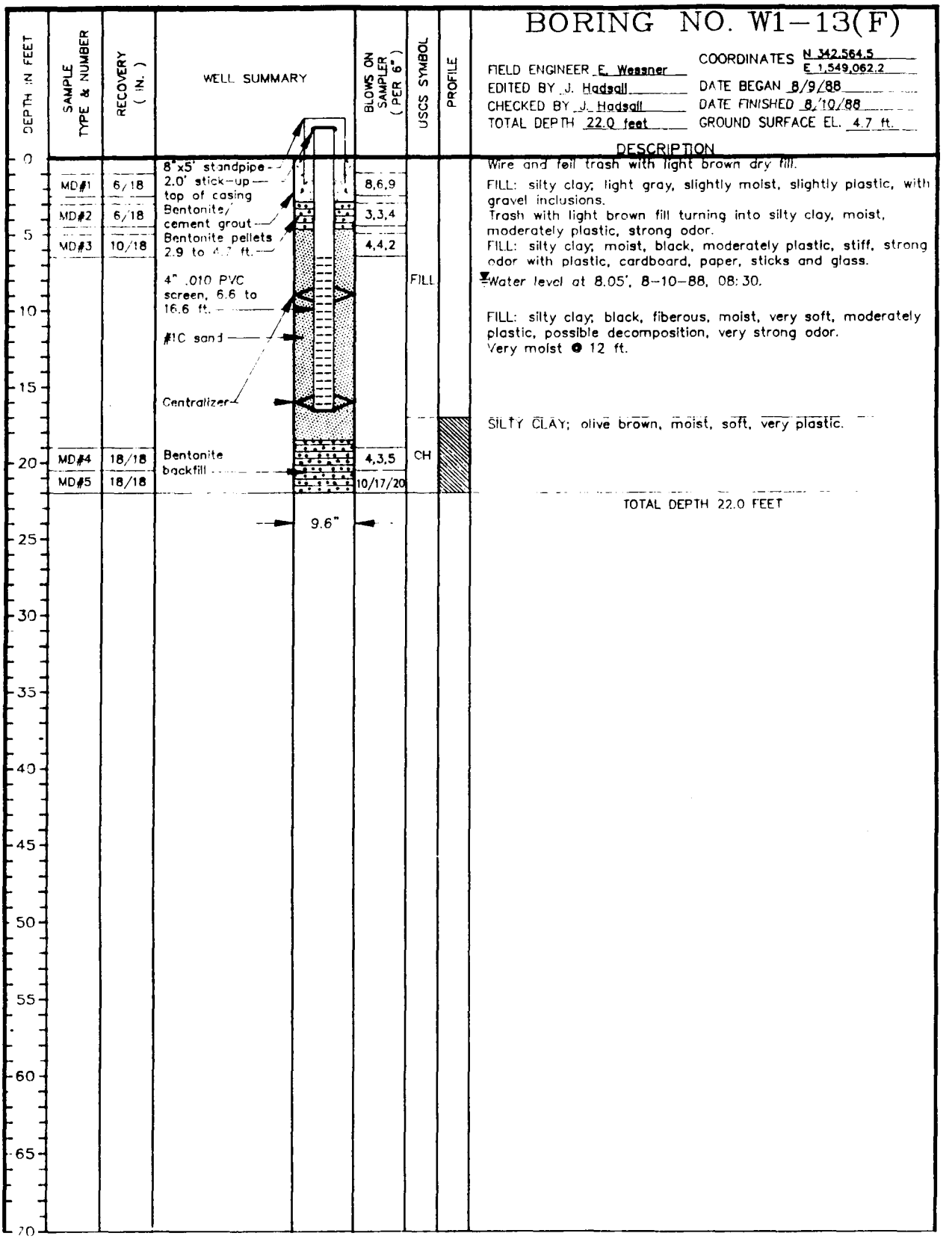
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W1–13(F)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 22.0 feet

COORDINATES N 342,564.5 E 1,549,062.2
DATE BEGAN 8/9/88
DATE FINISHED 8/10/88
GROUND SURFACE EL. 4.7 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW1-13F.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB1-1

FIELD GEOLOGIST J. Hadsall
EDITED BY S. Bartling
CHECKED BY J. Hadsall
TOTAL DEPTH 25 feet

COORDINATES N 342,458.6 E 1,549,818.9
DATE BEGAN 7/15/88
DATE FINISHED 7/15/88
GROUND SURFACE EL. 6.2 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	#1	36/60			FILL		FILL: silty sandy gravel; gray brown with black mottling, dry, loose, subangular, 1/4 to 1 1/2" gravels.
5	#2	60/60					FILL: gravelly silty clay; varied color, brown, black, mottled red, stiff, grass roots and organic matter, no odor.
10	#3	60/60					FILL: clayey silt; moist, soft, non-plastic, grass roots throughout.
15	#4	60/60					FILL: clayey silt; dark gray, moist, soft, non-plastic. FILL: silty clay; gray brown, stiff, moist, moderate plasticity.
20	#5	60/60			CL		SILTY CLAY; brown with mottled gray, moist, stiff, moderate plasticity.
25							TOTAL DEPTH 25 FEET 8" diameter boring
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD- California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB1-1(MF18)

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB1-2

FIELD GEOLOGIST J. Hadsall
EDITED BY S. Bartling
CHECKED BY J. Hadsall
TOTAL DEPTH 26.5 feet

COORDINATES N 342,564.5 E 1,549,062.2
DATE BEGAN 7/22/88
DATE FINISHED 7/25/88
GROUND SURFACE EL. 4.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	#1	18/60			FILL		FILL: refuse and debris, (angular cobles, pebbles, silty sand, trash; bottle caps, plastic, etc.).
5	#2	0/60					FILL: clay; black, very stiff, highly plastic, intermixed with refuse.
10	#3	0/60					
15	#4	0/60					▽ Gound water first encountered. Hole abandoned 7-22-88, hit pocket of methane gas at 15 feet. Drilling resumed 7-25-88.
20	#5	0/60					
25		0/18		18,20,28			Abandoned at 26.5 feet due to lack of recovery.
30							TOTAL DEPTH 26.5 FEET 8" diameter boring
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: 531-2(MF18)

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FOR EXPLANATION OF SYMBOLS AND TERMS

APPENDIX I

SECTION 2.0 – SITE 2 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#1

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 157.0 ft.
COORDINATES N 340,763.7 E 1,550,917.3
DATE BEGAN 6-15-88
DATE FINISHED 6-17-88
GROUND SURFACE EL. 0.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SANDY CLAY; loam, medium to dark brown, stiff, brittle.
5							5 1/2" casing installed from 0 to 6 1/2 feet.
10	#1	0/60			SC		Shaker: CLAYEY SAND; medium to dark gray, coarse, moderately round to angular quartz, with sandstone and siltstone fragments.
15	#2	7/60			CL		SANDY CLAY; light to medium brown, wet, moderately soft, sticky, slightly plastic.
20	#3	30/60					SANDY CLAY; light to medium brown, moderately dry, stiff, non-plastic, with coarse angular gravels.
25	#4	4/60					SILTY CLAY; gray brown, moderately dry, stiff, non-plastic.
30	#5	47/60					
35	#6	11/60					SANDY CLAY; medium brown, moderately dry, stiff, slightly plastic, with sandstone fragments, dark gray, medium to coarse.
40	#7	31/60					
45	#8	0/60					
50	#9	29/60					SANDY CLAY; gray brown, moderately dry, stiff, slightly plastic.
55	#10	10/60					
60	#11	27/60					SANDY CLAY; brown gray, moderately dry, stiff, slightly plastic.
65	#12	5/60					
70	#13	10/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB1.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#1

FIELD GEOLOGIST D.H. Cox
EDITED BY F. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 157.0 ft.
COORDINATES N 340,763.7 E 1,550,917.3
DATE BEGAN 6-15-88
DATE FINISHED 6-17-88
GROUND SURFACE EL. 0.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	10/60			CL		SANDY CLAY; gray brown, moist, moderately plastic, sticky.
75	#14	3/60					
80	#15	20/60					
85	#16	10/60			SC		CLAYEY SAND; medium gray, moist, soft to stiff, slightly plastic.
90	#17	3/60					
95	#18	24/60			CL		SANDY CLAY; gray, minor brown, moist, stiff, slightly plastic.
					SC		CLAYEY SAND; gray-graybrown, moist to wet, stiff, slightly plastic.
100	#19	42/60			CL		SANDY CLAY; gray-graybrown, moist-dry, stiff, slightly plastic.
105	#20	21/60					
					SC		CLAYEY SAND; gray-graybrown, moist, soft, moderately plastic.
110	#21	33/60			CL		SANDY CLAY; medium-dark gray, bluegray, dry, stiff, non-plastic.
115	#22	12/60					SILTY CLAY; medium-dark gray-blue gray, dry, stiff, non-plastic.
120	#23	34/60					SILTY CLAY; light to medium gray, brown gray, moist, stiff, very sticky, slightly plastic.
125	#24	19/60					
130	#25	43/60					
135	#26	18/60					SILTY CLAY; dark gray, dry, very stiff, slightly to non-plastic.
140	#27	60/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB1.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#1

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 157.0 ft.

COORDINATES N 340,763.7 E 1,550,917.3
DATE BEGAN 6-15-88
DATE FINISHED 6-17-88
GROUND SURFACE EL. 0.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (N.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#27	60/60			CL		SILTY CLAY; medium-dark gray-gray brown, dry, very stiff, slightly to non-plastic.
145	#28	52/60					SANDY CLAY; medium-dark gray-gray brown, moderately dry, stiff, slightly plastic.
150	#29	0/60					
155	#30	38/60					
160							TOTAL DEPTH 157.0 FEET 4-1/2" diameter boring
165							
170							
175							
180							
185							
190							
195							
200							
205							
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5" Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF_GB1.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#2

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hodsall
TOTAL DEPTH 157.0 ft.

COORDINATES N 340,190.1 E 1,550,859.7
DATE BEGAN 6-28-88
DATE FINISHED 6-29-88
GROUND SURFACE EL. 2.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SANDY SILTY CLAY, dark gray–black, dry, stiff to hard, non-plastic.
5							
10	#1	2/60		.25			GRAVELLY SANDY CLAY; dark gray–black, wet, soft, non-plastic with pebbles, angular gravels.
15	#2	8/60		1.5			GRAVELLY SANDY CLAY; light medium brown–gray brown moist, stiff, slightly plastic, minor gravels.
20	#3	17/60		2.0			SILTY CLAY; light medium brown–gray brown, moist, stiff, slightly plastic.
25	#4	29/60		3.0			SANDY CLAY; gray brown, moist to dry, stiff, slightly plastic.
30	#5	46/60		4.0			
35	#6	15/60		4.0			SANDY CLAY; brown–gray brown, moist, stiff, slightly to non-plastic.
40	#7	60/60		2.0 3.0 4.0			SANDY CLAY/SILTY CLAY; gray brown, pred. dry, stiff non-plastic.
45	#8	38/60		2.0 3.0			SILTY CLAY; medium gray brown, moist–dry, stiff, slightly plastic.
50	#9	20/60		.5	CH		CLAY–SILTY CLAY; medium gray, moist to wet, soft, very plastic.
55	#10	41/60		2.0 4.0 3.0	CL		SILTY CLAY; medium gray brown, moist to dry, stiff, slightly plastic.
60	#11	40/60		2.5			
65	#12	10/60		1.5			SILTY CLAY; dark gray–gray brown, moist, stiff, moderately plastic.
70	#13	14/60		.5 1.5	CH		CLAY; medium gray–brown gray, moist, soft, moderately to very plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB2.DWG

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BORING NO. GB#2

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 157.0 ft.
COORDINATES N 340,190.1 E 1,550,859.7
DATE BEGAN 6-28-88
DATE FINISHED 6-29-88
GROUND SURFACE EL. 2.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	14/60			CL		SANDY CLAY; medium gray–gray brown, moist, soft to stiff, moderately plastic.
75	#14	20/60		.5 1.0			
80	#15	12/60		.5			SILTY CLAY; gray brown, moist, stiff, moderately plastic.
85	#16	35/60		1.5			
90	#17	15/60		1.0			
95	#18	8/60		.25			
100	#19	12/60		1.0			
105	#20	10/60		.5	SC		CLAYEY SAND–SANDY CLAY; gray brown, moist to wet, stiff, plastic.
110	#21	21/60		1.0	CH		SILTY CLAY; medium brown, soft to moist, stiff, plastic.
115	#22	60/60		2.0 2.5	CL		CLAY–SILTY CLAY; medium gray, moist to dry, stiff to brittle, slightly plastic.
120	#23	56/60		2.5			SILTY CLAY; medium gray, moist to dry, stiff, slightly plastic.
125	#24	60/60		2.5			CLAY–SILTY CLAY; gray–brown gray, pred. dry, stiff, non–plastic.
130	#25	34/60		1.0 1.25			
135	#26	46/60		2.0 3.5			CLAY–SILTY CLAY; light medium gray, moist to dry, stiff, non–plastic.
140	#27	60/60		3.5 4.0			CLAY; medium–dark gray, pred. dry, stiff to hard, non–plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB2.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#2

FIELD GEOLOGIST D.H. Cox
LOGGED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 157.0 ft.
COORDINATES N 340,190.1, E 1,550,859.7
DATE BEGAN 6-28-88
DATE FINISHED 6-29-88
GROUND SURFACE EL. 2.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY	WELL SUMMARY	MEASURED CONSISTENCY	USCS SYMBOL	BASELINE	DESCRIPTION
110	#27	60/60		2.5	CL		CLAY; medium-dark gray-gray brown, pred. dry, stiff to hard non-plastic to slightly plastic.
115	#28	49/60		2.5			
150	#29	20/60		3.0	SC		CLAYEY SAND; medium gray-brown gray, wet, soft, non-plastic to slightly plastic, fine to medium, subangular-subround, moderate-well sorted sand.
155	#30	28/60		3.0	CL		CLAY--SILTY CLAY, brown-gray brown, soft to stiff, moist, slightly plastic.
							TOTAL DEPTH 157.0 FEET 4-1/2" diameter boring

160 165 170 175 180 185 190 195 200 205 210

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB2.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#3

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsell
TOTAL DEPTH 243.0 ft.
COORDINATES N341,038.2 E1,550,380.7
DATE BEGAN 6-24-88
DATE FINISHED 6-27-88
GROUND SURFACE EL. 0.24

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					MH		SANDY LOAM; topsoil, medium brown, dry, soft to stiff non-plastic. 5 1/2" casing installed from 0 to 6.5 feet. 6.5'
		0/18					
10	#1	7/60		.5	CL		SANDY CLAY; medium brown, wet, soft, moderately plastic with coarse sand and gravel fragments.
15	#2	8/60		1.0			Moisture content decreasing with depth. Color varies from medium brown to gray.
20	#3	43/60		1.5			Minor sand.
25	#4	28/60		1.0			
30	#5	9/60		1.0–1.5	CH		GRAVELLY SANDY CLAY; medium brown, wet, soft, plastic with moderate to well rounded gravels (pred. dark gray siltstone, angular to round, poorly sorted).
35	#6	16/60		2.0	CL		SANDY CLAY; medium brown, moist, stiff, non-plastic to slightly plastic.
40	#7	12/60		1.0			
45	#8	35/60		2.0	CH		SILTY CLAY; medium brown, moist, stiff, plastic.
50	#9	31/60		1.0–2.5	CL		SANDY CLAY; gray brown, moist, stiff, slightly plastic.
55	#10	55/60		2.5			SILTY CLAY; gray brown, dry to moist, stiff, slightly to non-plastic.
60	#11	48/60		1.0–2.0			
65	#12	14/60		0.5–1.0			SANDY CLAY; medium brown, dry to moist, soft to stiff, brittle, non-plastic.
70	#13	8/60		.5	CH		SANDY CLAY; gray brown, moist, soft, plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB3.DWG

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SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#3

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 243.0 ft.
COORDINATES N 341,038.2 E 1,550,380.7
DATE BEGAN 6-24-88
DATE FINISHED 6-27-88
GROUND SURFACE EL. 0.24

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	8/60		.5	CH		SANDY CLAY; gray brown, moist, soft, plastic.
75	#14	12/60		.5			
80	#15	12/60		1.0			
85	#16	29/60		1.0–1.5			SILTY CLAY; medium to dark gray, moist, soft, very plastic.
90	#17	18/60		.5			
95	#18	42/60		3.0–3.5	CL		SILTY CLAY; gray to brown gray, dry, stiff, slightly plastic.
100	#19	16/60		.5	SC		CLAYEY SAND; medium brown to gray brown, moist, soft, non-plastic, fine, subangular, subround, moderate-well sorted sand.
105	#20	60/60		2.0	CL		SILTY CLAY; brown to gray brown, moist, stiff, moderately plastic.
110	#21	48/60		3.0–4.5			SANDY CLAY-CLAYEY SAND; light to medium gray, moist, stiff, non-plastic.
115	#22	0/60			SC		SAND; fine to medium, subangular-subround, moderate to well sorted quartz.
120	#23	60/60		1.0	CH		CLAY-SILTY CLAY; dark gray, moist to dry, stiff, plastic.
125	#24	34/60		1.5	CL		SANDY CLAY-CLAYEY SAND; dark gray, moist, stiff to soft, non-plastic to slightly plastic, minor shell fragments.
130	#25	24/60		2.0–2.5	CL		CLAY-SILTY CLAY; dark gray, moist to dry, stiff, slightly to non-plastic, minor shell fragments.
135	#26	60/60		2.0			SILTY CLAY-CLAY; dark gray, moderately dry, stiff, slightly to non-plastic.
140	#27	60/60		2.5			SILTY CLAY; gray to brown gray, moderately dry, stiff, slightly plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary
SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB3.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#3

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 243.0 ft.
COORDINATES N 341,038.2 E 1,550,380.7
DATE BEGAN 6-24-88
DATE FINISHED 6-27-88
GROUND SURFACE EL. 0.24

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#27	60/60		2.5			SILTY CLAY; brown to gray brown; moderately dry, stiff; non-plastic to slightly plastic.
145	#28	40/60		2.0-2.5			
150	#29	38/60		1.5-2.5			
155	#30	53/60		2.5	CL		SILTY CLAY; dark gray, dry, stiff, non-plastic.
160	#31	60/60		2.0-2.5			SILTY CLAY; light to medium gray, moist, stiff, slightly plastic.
165	#32	50/60		2.5			
170	#33	53/60		2.5	CH		SANDY-SILTY CLAY; dark gray, moist, stiff, plastic, trace shell fragments.
175	#34	24/30		2.0			SILTY CLAY; medium gray, dry to moist, stiff, slightly plastic.
180	#35	32/60		2.5			
185	#36	58/60		3.5			
190	#37	40/60		2.5	CL		SILTY CLAY; light to medium brown, dry, stiff, non-plastic.
195	#38	40/60		4.0			
200	#39	60/60		3.0			
205	#40	32/60		3.5			SILTY CLAY; light gray to gray brown, dry, stiff, non-plastic.
210	#41	11/60		2.5			GRAVELLY SILTY CLAY-SANDY CLAY; gray brown, moist to dry, stiff, slightly plastic with gravel, pred. coarse angular siltstone fragments.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary
SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB3.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#3

FIELD GEOLOGIST D.H. Cox
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 243.0 ft.
COORDINATES N 341038.2 E 1,550,380.7
DATE BEGAN 6-24-88
DATE FINISHED 6-27-88
GROUND SURFACE EL. 0.24

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#41	11/60		2.5	CL		GRAVELLY SILTY CLAY–SANDY CLAY; gray brown, dry to moist, stiff, slightly plastic with gravel, pred. coarse angular siltstone fragments.
215	#42	31/60		2.0			SILTY CLAY; dark gray, moist, soft to stiff, moderately plastic.
220	#43	44/60		2.5–3.5			
225	#44	58/60		3.0			
230	#45	29/60		1.5			SANDY CLAY; gray brown, moist, soft to stiff, slightly plastic.
235	#46	40/60		3.5–4.0			SILTY CLAY; dark gray, dry, stiff, slightly to non–plastic.
240	#47	58/60		4.5			GRAVELLY SANDY CLAY; light to medium gray to brown gray, moist to dry, stiff, slightly to non–plastic, coarse sand and gravel
245							TOTAL DEPTH 243.0 FEET 4-1/2" diameter boring
250							
255							
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB3.DWG

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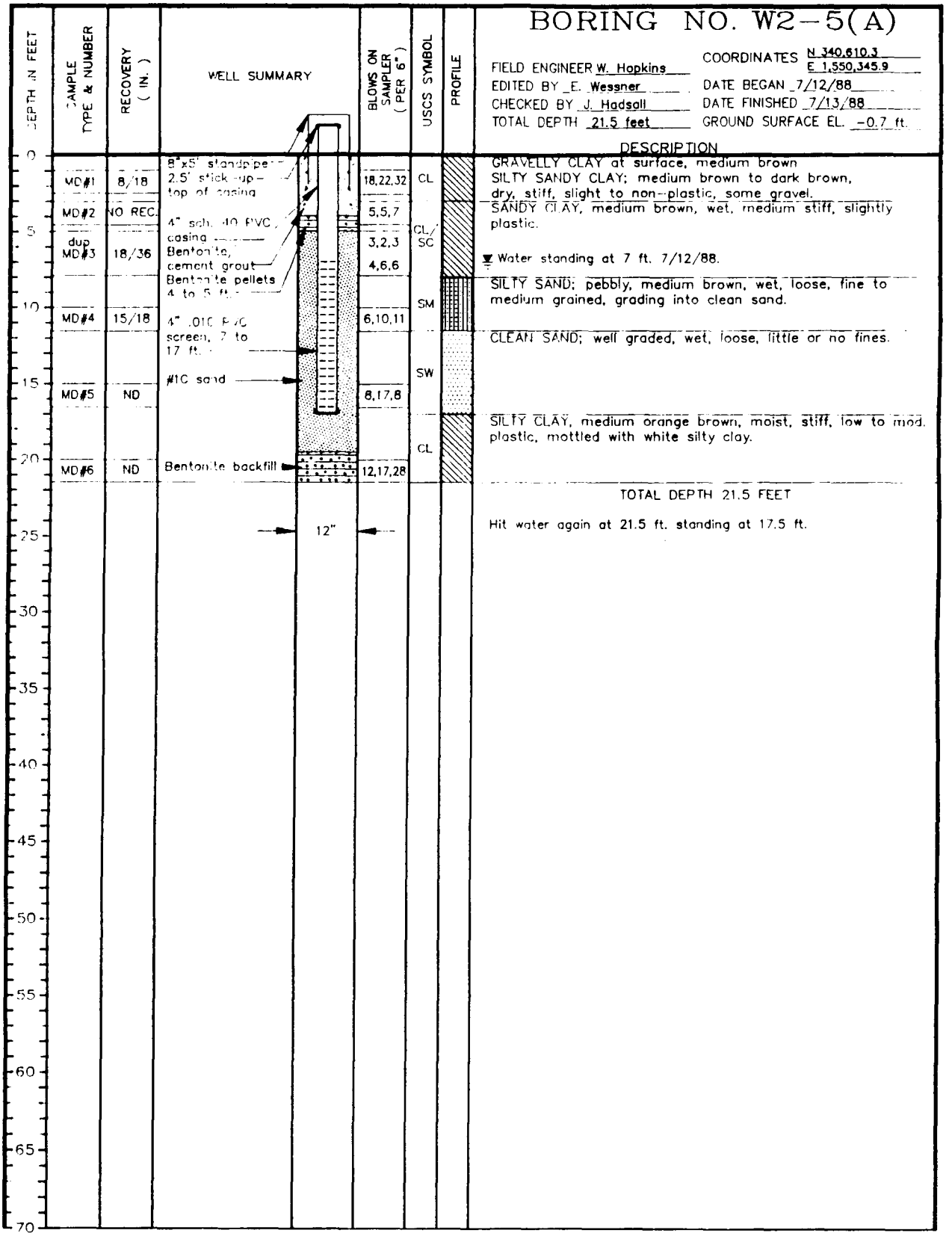
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W2-5(A)

FIELD ENGINEER W. Hopkins
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 21.5 feet

COORDINATES N 340,610.3 E 1,550,345.9
DATE BEGAN 7/12/88
DATE FINISHED 7/13/88
GROUND SURFACE EL. -0.7 ft.



DESCRIPTION

GRAVELLY CLAY at surface, medium brown
SILTY SANDY CLAY; medium brown to dark brown, dry, stiff, slight to non-plastic, some gravel.
SANDY CLAY, medium brown, wet, medium stiff, slightly plastic.

▼ Water standing at 7 ft. 7/12/88.

SILTY SAND; pebbly, medium brown, wet, loose, fine to medium grained, grading into clean sand.

CLEAN SAND; well graded, wet, loose, little or no fines.

SILTY CLAY, medium orange brown, moist, stiff, low to mod. plastic, mottled with white silty clay.

TOTAL DEPTH 21.5 FEET

Hit water again at 21.5 ft. standing at 17.5 ft.

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W2-5A.DWG

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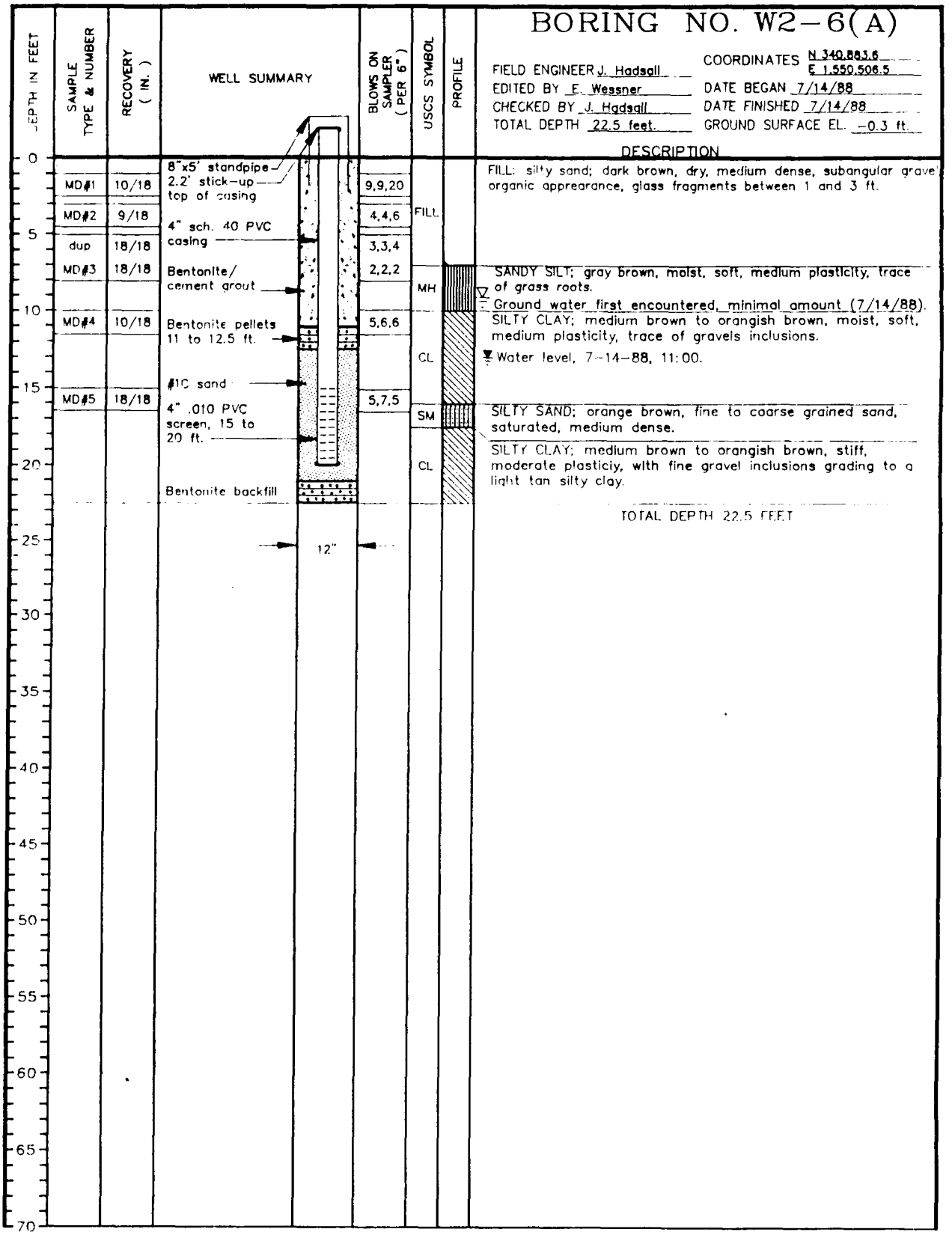
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W2-6(A)

FIELD ENGINEER J. Hadsall
EDITED BY E. Wessner
CHECKED BY J. Hadsall
TOTAL DEPTH 22.5 feet.

COORDINATES N 340,883.6, E 1,550,506.5
DATE BEGAN 7/14/88
DATE FINISHED 7/14/88
GROUND SURFACE EL. -0.3 ft.



DESCRIPTION

FILL: silty sand; dark brown, dry, medium dense, subangular grave organic appearance, glass fragments between 1 and 3 ft.

SANDY SILT; gray brown, moist, soft, medium plasticity, trace of grass roots.

Ground water first encountered, minimal amount (7/14/88).

SILTY CLAY; medium brown to orangish brown, moist, soft, medium plasticity, trace of gravels inclusions.

▼ Water level, 7-14-88, 11:00.

SILTY SAND; orange brown, fine to coarse grained sand, saturated, medium dense.

SILTY CLAY; medium brown to orangish brown, stiff, moderate plasticiy, with fine gravel inclusions grading to a light tan silty clay.

TOTAL DEPTH 22.5 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W2-6A.DWG

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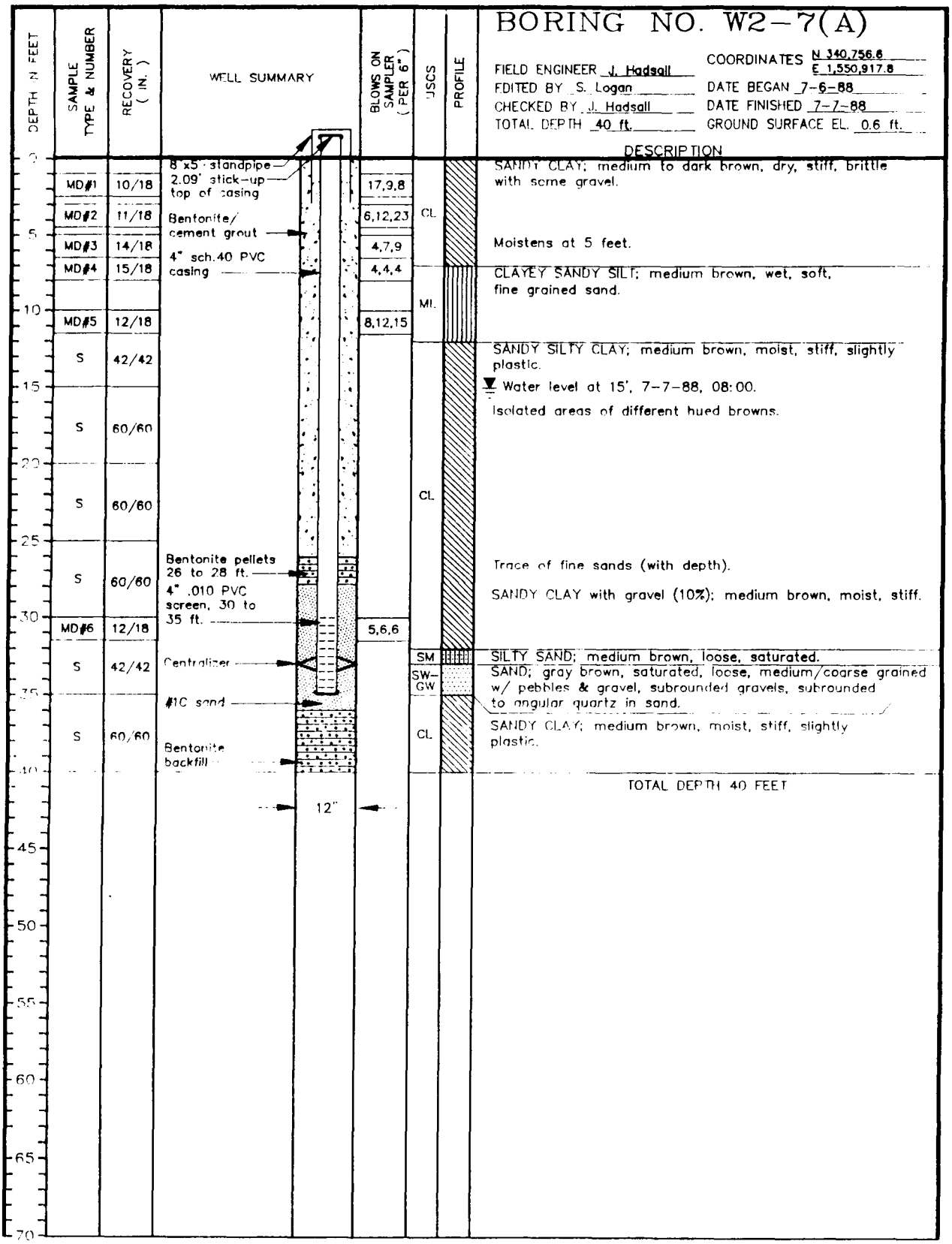
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W2-7(A)

FIELD ENGINEER J. Hadsall
EDITED BY S. Logan
CHECKED BY J. Hadsall
TOTAL DEPTH 40 ft.

COORDINATES N 340,756.6 E 1,550,917.8
DATE BEGAN 7-6-88
DATE FINISHED 7-7-88
GROUND SURFACE EL. 0.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Hollow-Stem Auger-CME 55

PROJECT NO. 409616
LOCATION: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W27A.DWG

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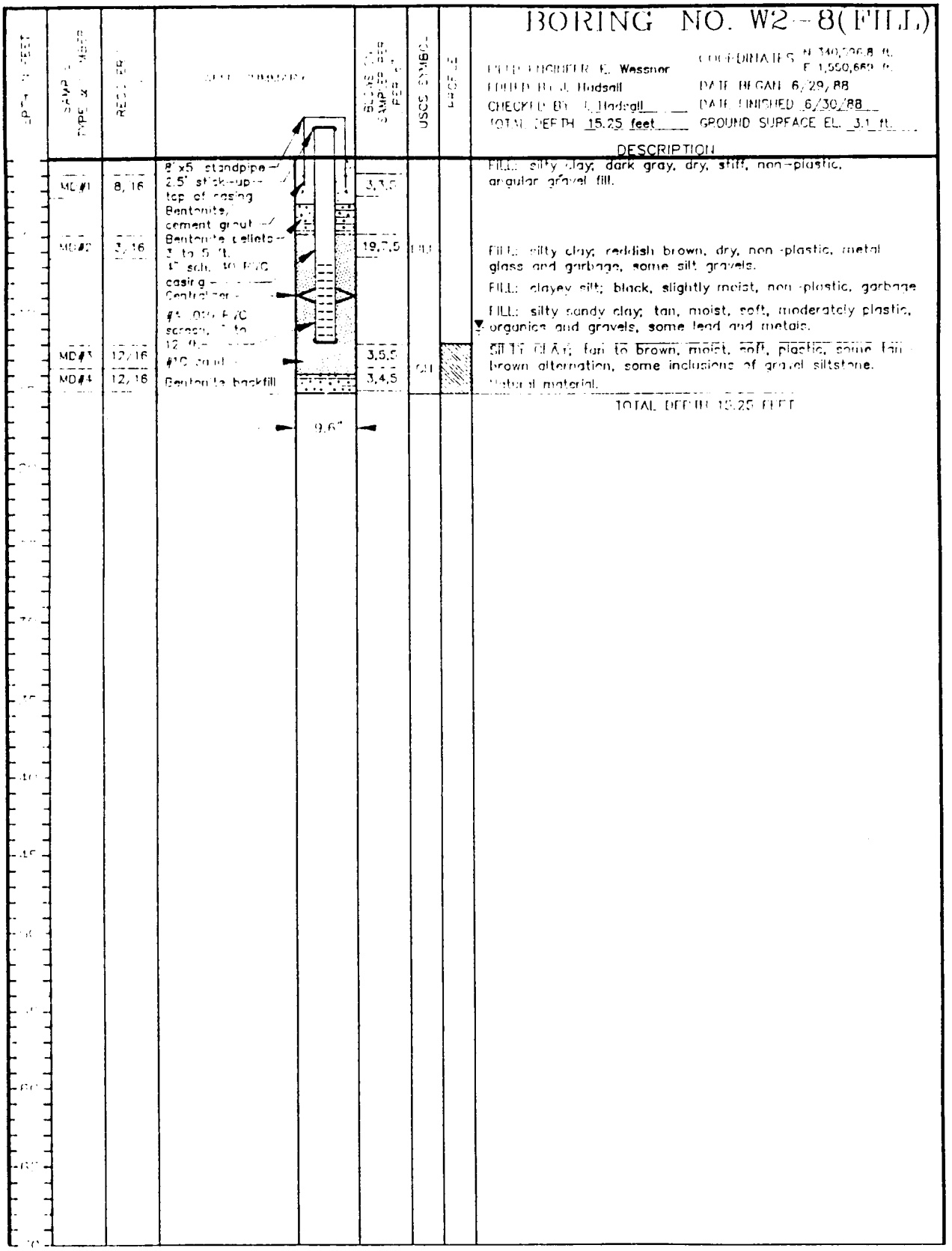
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W2-8(FILL)

FIELD ENGINEER E. Wessner
FIELD BOSS J. Hudsell
CHECKED BY J. Hudsell
TOTAL DEPTH 15.25 feet
COORDINATES N 340,296.8 ft, E 1,560,669 ft
DATE BEGAN 6/29/88
DATE FINISHED 6/30/88
GROUND SURFACE EL. 3.1 ft



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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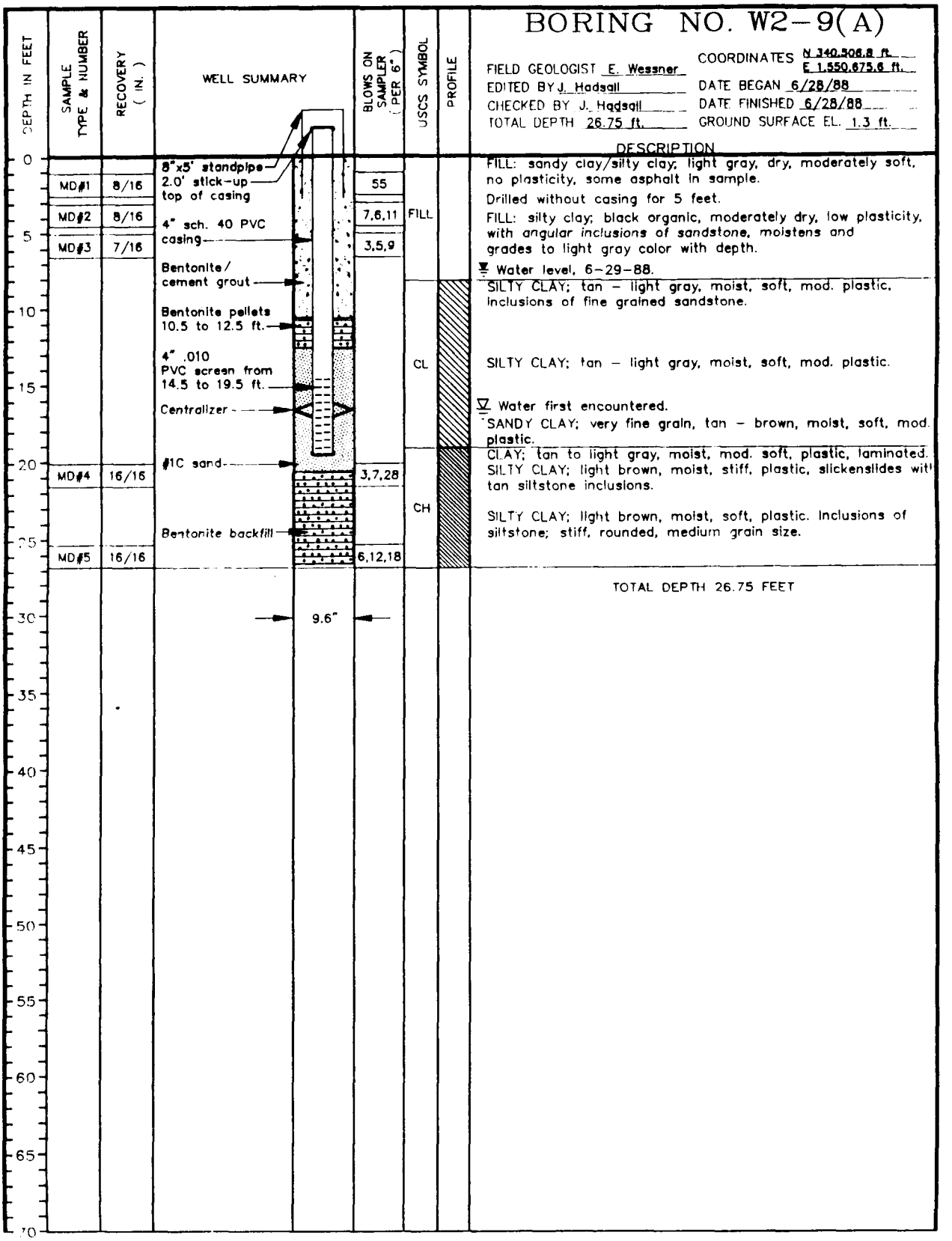
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W2-9(A)

FIELD GEOLOGIST E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 26.75 ft.

COORDINATES N 340,506.8 ft. E 1,550,675.6 ft.
DATE BEGAN 6/28/88
DATE FINISHED 6/28/88
GROUND SURFACE EL. 1.3 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW2-9F1.DWG

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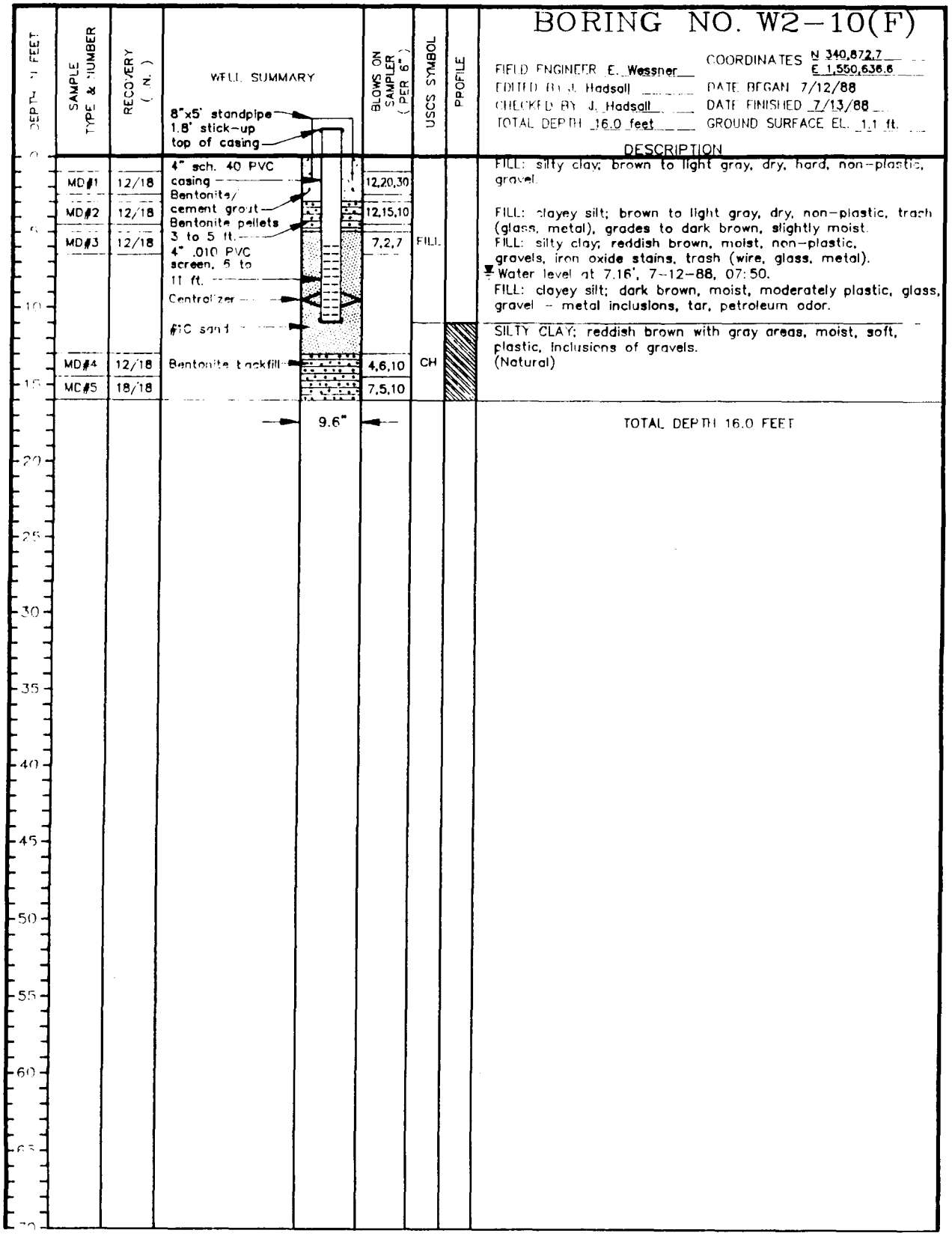
BORING NO. W2-10(F)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 16.0 feet

COORDINATES N 340,872.7 E 1,550,636.6
DATE BEGAN 7/12/88
DATE FINISHED 7/13/88
GROUND SURFACE EL. 1.1 ft.



DESCRIPTION

FILL: silty clay; brown to light gray, dry, hard, non-plastic, gravel.

FILL: clayey silt; brown to light gray, dry, non-plastic, trash (glass, metal), grades to dark brown, slightly moist.
FILL: silty clay; reddish brown, moist, non-plastic, gravels, iron oxide stains, trash (wire, glass, metal).
Water level at 7.16', 7-12-88, 07:50.
FILL: clayey silt; dark brown, moist, moderately plastic, glass, gravel - metal inclusions, tar, petroleum odor.

SILTY CLAY; reddish brown with gray areas, moist, soft, plastic, inclusions of gravels.
(Natural)

TOTAL DEPTH 16.0 FEET

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW2-10F.DWG

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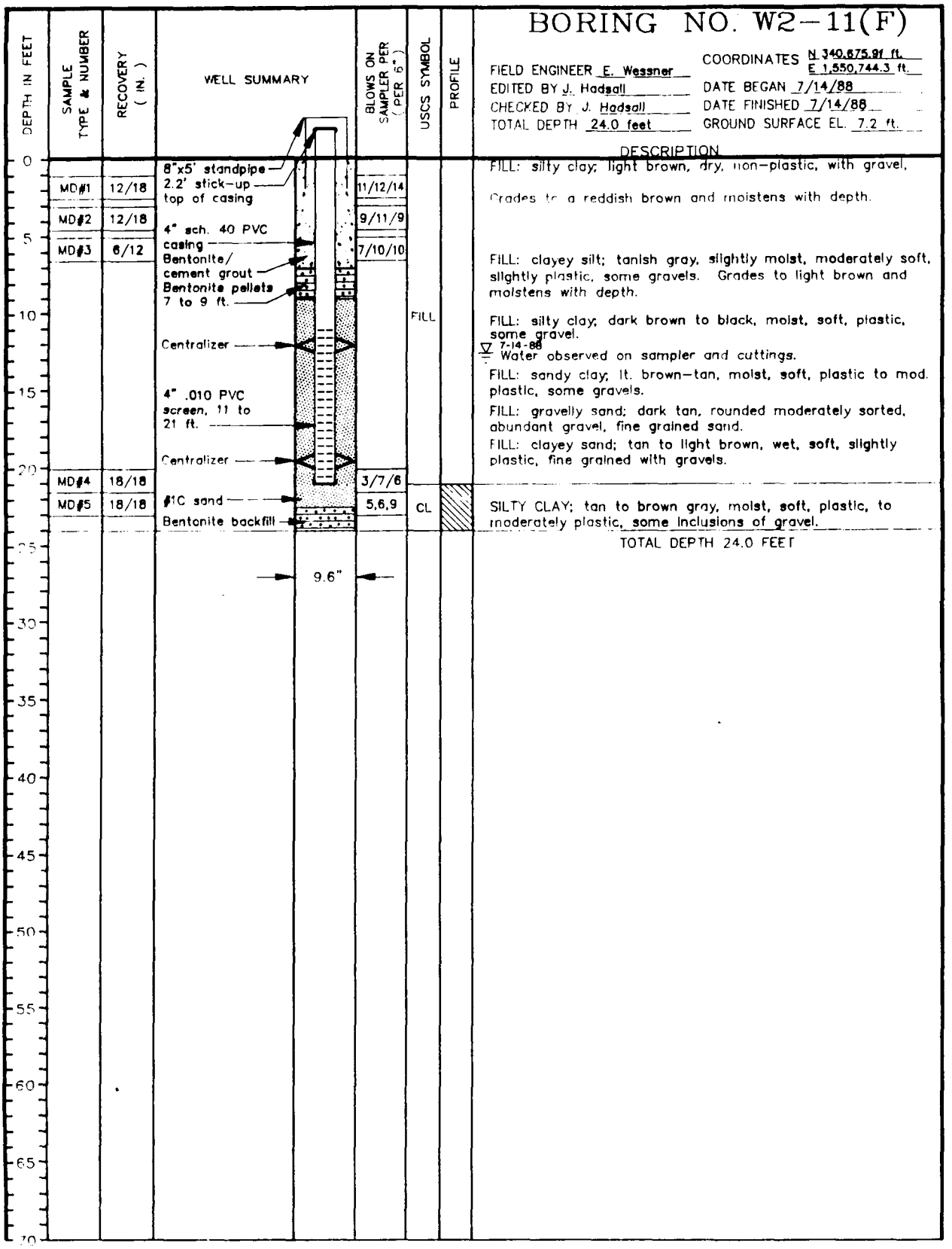
BORING NO. W2-11(F)

FIELD ENGINEER E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 24.0 feet

COORDINATES N 340,675.91 ft. E 1,550,744.3 ft.
DATE BEGAN 7/14/88
DATE FINISHED 7/14/88
GROUND SURFACE EL. 7.2 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW2-11F.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB2-1

FIELD GEOLOGIST J. Hadsall
EDITED BY S. Bartling
CHECKED BY J. Hadsall
TOTAL DEPTH 25 feet

COORDINATES N 340,550 E 1,550,680
DATE BEGAN 8/1/88
DATE FINISHED 8/1/88
GROUND SURFACE EL.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0							SANDY SILTY CLAY; light gray, mottled orange oxidation, dry, moderately soft, non-plastic.
	#1	36/60			CL		SILTY CLAY; black, dry, non-plastic, brittle, grass roots.
5							SILTY CLAY; light gray--tan, moist, moderate plasticity with sandstone inclusions.
	#2	60/60			MH		CLAYEY SANDY SILT; tan, wet, slight plasticity.
10					CL		SILTY CLAY; tan, moist, medium stiff, moderate plasticity.
	#3	60/60			MH		SANDY SILT; tan, wet.
15					CL		SILTY CLAY; tan, moist, medium stiff, moderate plsticity.
	#4	60/60					SILTY CLAY; tan, moist, soft, moderate to low plasticity, highly fractured with some water in fractures.
20							SILTY CLAY; tan, slightly moist, stiff, moderate plasticity.
	#5	60/60					SILTY CLAY; light brown, moist, stiff, fractured zones with sandstone inclusions.
25							TOTAL DEPTH 25 FEET 8" diameter boring
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB2-1(MF21)

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BORING LOGS OF SITE 3 WELLS
WILL BE INCLUDED IN FUTURE REPORTS

BORING LOGS OF SITE 4 WELLS
WILL BE INCLUDED IN FUTURE REPORTS

APPENDIX I

SECTION 5.0 – SITE 5 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB-21

FIELD ENGINEER J. Hadsall
EDITED BY D.H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 232 ft.

COORDINATES N 338,458.4 E 1,553,646.6
DATE BEGAN 8/23/88
DATE FINISHED 8/23/88
GROUND SURFACE EL. 6.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
0					CL		SANDY CLAY; medium brown, moist, stiff, grass roots and gravel.
5							
10	#1	4/60					SANDY CLAY; medium/dark brown, moist, very stiff, moderate plasticity, some gravel.
15	#2	6/60					
20	#3	20/60					SANDY CLAY; medium brown, moist, stiff, moderate plasticity, mudstone fragments.
25	#4	36/60					
30	#5	10/60			GC		SANDY CLAYEY GRAVEL; medium brown, moist, stiff, moderate plasticity, 50% gravel, 10% sand. Gravel from shaker.
35	#6	0/60 *					* No recovery Angular gravels 1/8-1/2" clasts, clert and mudstone. Drill bit is grinding on gravels.
40	#7	0/60					
45	#8	20/60			CL/CH		SANDY CLAY; medium tan brown, moist, very stiff, moderate plasticity, mudstone fragments.
50	#9	6/60					SANDY SILTY CLAY; medium tan brown, moist, very stiff, moderate plasticity, medstone fragments and grass roots. SILTY CLAY; medium/dark brown, moist, very stiff, high plasticity.
55	#10	32/60					
60	#11	4/60					SANDY SILTY CLAY; medium brown, moist, stiff, moderate-high plasticity.
65	#12	30/60					SILTY CLAY; medium brown, moist, stiff, moderate-high plasticity, mudstone fragments.
70	#13	5/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB21.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-21

FIELD ENGINEER J. Hadsall
EDITED BY D.H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 232 ft.

COORDINATES N 338,458.4 E 1,553,646.6
DATE BEGAN 8/23/88
DATE FINISHED 8/23/88
GROUND SURFACE EL. 6.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
70	#13	5/60			CH		SILTY CLAY; medium brown, moist, stiff, high plasticity.
75	#14	24/60					
80	#15	0/60					No Recovery -- Fine grained sand and silt coming from the shaker.
85	#16	0/60					
90	#17	0/60					
95	#18	22/60			CH		SILTY CLAY; medium brown, soft, moist, sticky.
100	#19	12/60					SILTY CLAY; medium brown, moist, very stiff, high plasticity.
105	#20	6/60					SILTY CLAY; medium brown, moist, stiff, high plasticity.
110	#21	2/60					SILTY CLAY; medium brown, soft, moist, sticky.
115	#22	0/60					No Recovery
120	#23	0/60					
125	#24	10/60			CH		SILTY CLAY; gray brown, moist, stiff, very plastic.
130	#25	0/60					No Recovery
135	#26	30/60			CH		SILTY CLAY; gray brown, moist, very stiff, very plastic.
140	#27	44/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB21.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-21

FIELD ENGINEER J. Hodsall
EDITED BY D.H. Cox
CHECKED BY J. Hodsall
TOTAL DEPTH 232 ft.

COORDINATES N 338,458.4 E 1,553,646.6
DATE BEGAN 8/23/88
DATE FINISHED 8/23/88
GROUND SURFACE EL. 6.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (PER 6")	USCS	PROFILE	DESCRIPTION
140	#27	44/60			CH		SILTY CLAY; medium brown, mottled gray, moist, very stiff, very plastic.
145	#28	60/60					
150	#29	54/60			CL		SILTY SANDY CLAY; medium brown, mottled gray, moist, very stiff, moderate plasticity.
					SM		SILTY SAND; medium brown, moist, medium dense.
					CH		SANDY SILTY CLAY; medium brown, moist, stiff, very plastic.
155	#30	40/60			SM		SILTY SAND; medium brown, moist, loose.
160	#31	0/60					No recovery
165	#32	48/60			CH		SILTY CLAY; medium brown gray, moist, very stiff, highly plastic.
170	#33	12/60			GP		GRAVEL; large angular clasts, 1"-2" in length. No recovery: Probably gravels (inferred from bit behavior).
175	#34	0/60					
180	#35	0/60					Losing water to formation, probably still in gravels. Split gravels (1/4" inch, angular from shaker.
185	#36	0/60					
190	#37	0/60					
195	#38	0/60					
200	#39	0/60					No recovery: appears to be fine gravel and coarse sand, (from shaker).
205	#40	0/60					
210	#41	0/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB21.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-21

FIELD ENGINEER J. Hadsall
EDITED BY D.H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 232 ft.

COORDINATES N 338,458.4 E 1,553,646.6
DATE BEGAN 8/23/88
DATE FINISHED 8/23/88
GROUND SURFACE EL. 6.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
210	#41	0/60					No recovery: appears to be coarse sand and angular gravels, (shaker).
215	#42	60/60			CL		SILTY CLAY; tan brown, moist, very stiff, moderate plasticity.
220	#43	0/60					No recovery: bit behavior indicates gravel.
225	#44	28/60			CH		SILTY CLAY; gray green, moist, stiff, plastic.
230	#45	60/60					
235	#46	0/60					TOTAL DEPTH 232 FEET 4-1/2" diameter boring
240	#47	0/60					
245							
250							
255							
260							
265							
270							
275							
280							

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB21.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-22

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 248 ft.

COORDINATES N 337,159.6 E 1,553,394.6
DATE BEGAN 6/30/88
DATE FINISHED 7/5/88
GROUND SURFACE EL. 12.78 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS	PROFILE	DESCRIPTION
0							CLAY-SILTY CLAY; light brown, dry, non-plastic, hard.
5					OL		CLAY; dark gray-black, dry-slightly moist, stiff, hard, slightly plastic.
10	#1	9/60					SANDY CLAY; light-medium gray brown, stiff, wet, slightly plastic.
15	#2	28/60					
20	#3	22/60					SANDY CLAY; medium brown-dark brown, moist, very stiff, slightly plastic, abundant coarse sand, subangular-rounded, moderately-well sorted, quartz & milky quartz with angular gravel, predominantly siltstone & sandstone, medium dark brown-dark brown, chert fragments.
25	#4	0/60					
30		0/60					
35	#5	54/60					SANDY CLAY; gray brown, very stiff, moist, slight-moderate plasticity, with coarse sand and gravel associated.
40	#6	60/60			CL		SILTY CLAY; light-medium gray, moist, very stiff, moderate plasticity. SANDY CLAY; blue gray- brown gray, moist-dry, stiff-hard, slightly-non-plastic.
45	#7	23/60					SILTY CLAY; minor sand, gray brown, predominantly dry, very stiff, slightly to non-plastic.
50	#8	35/60					
55	#9	19/60					
60	#10	17/60					SANDY CLAY; medium gray, brown gray, moist, very stiff, slight plasticity.
65	#11	7/60					
70	#12	15/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.. 409616
CLIENT. Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: 0.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-22

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 248 ft.

COORDINATES N 337,159.6 E 1,553,394.6
DATE BEGAN 6/30/88
DATE FINISHED 7/5/88
GROUND SURFACE EL. 12.78 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS	PROFILE	DESCRIPTION
70	#12	15/60			CL		SILTY CLAY; minor sand, medium brown-gray brown, moist, very stiff, slight plasticity.
75	#13	20/60			CH		CLAY-SILTY CLAY; medium brown, moist, very stiff, plastic.
80	#14	26/60					
85	#15	55/60					SILTY CLAY; gray brown, firm, moist, slight plasticity.
90	#16	18/60					SANDY CLAY; medium gray, moist-wet, soft-stiff, slight plasticity.
95	#17	27/60					SILTY CLAY-SANDY CLAY; stiff, moist, slight plasticity.
100	#18	32/60					SILTY CLAY; gray brown, moist, very stiff, slight plasticity
105	#19	27/60					
110	#20	60/60			CL		CLAY; dark brown, predominantly dry, very stiff, non-plastic
115	#21	20/60					
120	#22	60/60					SILTY CLAY; medium gray, moist, very stiff, slight to moderate plasticity.
125	#23	60/60					
130	#24	60/60					CLAY; medium-dark gray, slightly moist - dry, very stiff, slight to non-plastic.
135	#25	60/60					
140	#26	60/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-22

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 248 ft.

COORDINATES N 337,159.6 E 1,553,394.6
DATE BEGAN 6/30/88
DATE FINISHED 7/5/88
GROUND SURFACE EL. 12.78 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS	PROFILE	DESCRIPTION
140	#26	60, 60			CL		Consistency increases to hard.
145	#27	20/60			SC		CLAYEY SAND; medium gray-brown gray, moist-wet, stiff, slight plasticity.
150	#28	43/60					CLAY-SILTY CLAY; medium gray-blue gray, predominantly dry, very stiff, slight to non-plastic.
155	#29	60/60			CL		
160	#30	22/60					
165		0/60					No recovery
170	#31	4/60			GC		CLAYEY GRAVEL; pebbles, angular fragments.
175	#32	4/60					SANDY CLAY; medium-dark gray-blue gray, moist, stiff, slight plasticity with pebbles and angular fragments.
180	#33	43/60					SILTY CLAY; medium gray-blue gray, predominantly dry, slight plasticity.
185		0/60					
190	#34	30/60			CL		SANDY CLAY; medium-dark gray-blue gray, moist, very stiff hard, slight plasticity, grading to clayey sand.
195	#35	60/60					
200	#36	58/60					Consistency decreases to stiff-very stiff.
205	#37	20/60					
210	#38	45/60					CLAY-SILTY CLAY; dark gray-blue gray, moist, very stiff, slight plasticity.

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: 0.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-22

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 248 ft.

COORDINATES N 337,159.6 E 1,553,394.6
DATE BEGAN 6/30/88
DATE FINISHED 7/5/88
GROUND SURFACE EL. 12.78 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS	PROFILE	DESCRIPTION
210	#38	58/60			CL		CLAY-SILTY CLAY; dark gray-blue gray, moist, very stiff, slight plasticity.
215	#39	45/60			SC		CLAYEY SAND; dark gray, moist, stiff-very stiff, non-plastic, very fine-fine, well sorted, subangular-subrounded, grading to sandy clay.
220	#40	60/60			CL		SANDY CLAY; dark gray, very stiff, moist-wet, slight to non-plastic.
225	#41	33/60					
230	#42	53/60					Color grades to light-medium gray.
235	#43	47/60					Color grades to medium brown-gray brown.
240	#44	48/60			SC		CLAYEY SAND-SANDY CLAY; medium brown, moist, very stiff-hard, non-plastic.
245	#45	7/60			CL		SANDY CLAY; light-medium gray brown, moist, very stiff, non-plastic.
250							TOTAL DEPTH 248 FEET 4-1/2" diameter boring
255							
260							
265							
270							
275							
280							

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: 0.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-23

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 252 ft.

COORDINATES N 338,115.1 E 1,553,062.2
DATE BEGAN 8/16/88
DATE FINISHED 8/17/88
GROUND SURFACE EL. 13.76 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
0							Asphalt
5					CL		SANDY GRAVELLY CLAY; dark gray-black, predominantly dry, stiff, slight to non-plastic.
10							
15	#1	2/60					SANDY CLAY; dark gray-brown, moist, stiff, slight-moderate plasticity.
20	#2	0/60			GC		CLAYEY GRAVEL; medium to coarse, subangular to round, clay; light to medium brown, wet, soft, (logged from shaker).
25	#3	9/60			CL		SILTY CLAY; medium brown, minor gray, moist, stiff, slight-moderate plasticity.
30	#4	16/60					
35	#5	21/60					SILTY CLAY; moderate yellowish brown, predominantly dry-moist, moderate plasticity.
40	#6	0/60					No recovery
45	#7	25/60			CL		CLAY-SILTY CLAY; medium brown (yellow brown), moist, stiff, moderate plasticity.
50	#8	27/60			CH		SANDY CLAY; moderate-dark yellow brown, moist, stiff-very stiff, plastic.
55	#9	17/60					SILTY CLAY; moderate yellow brown, moist, soft, plastic.
60	#10	7/60			CL		CLAY-SILTY CLAY; dark yellow brown, moist, soft-stiff, moderate plasticity.
65	#11	60/60					SILTY CLAY; moderate yellow brown-gray brown, predominant dry, very stiff-hard, slight plasticity.
70	#12	56/60					SILTY CLAY, minor sand, dark brown-gray brown, moderately dry, slight plasticity.

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE MF-GB23.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-23

FIELD ENGINEER D.H. Cox
EDITED BY J. Hodsall
CHECKED BY J. Hodsall
TOTAL DEPTH 252 ft.
COORDINATES N 338,115.1 E 1,553,082.2
DATE BEGAN 8/16/88
DATE FINISHED 8/17/88
GROUND SURFACE EL. 13.76 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE, RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER 6"	USCS	PROFILE	DESCRIPTION
75	#12	56/60			CL		SILTY CLAY; gray brown–brown gray, predominantly dry, very stiff, moderate–slight plasticity.
	#13	60/60					
80	#14	15/60					SILTY CLAY; minor sand, dark yellow brown, moist, very stiff, moderate plasticity.
85	#15	27/60					
90	#16	16/60			CH		SILTY CLAY; dark gray brown, moist, stiff, plastic.
	#17	24/60			CL		SANDY CLAY; medium gray, moist–wet, stiff, slight plasticity.
100	#18	8/60			CH		SANDY CLAY, dark yellowish brown, moist, soft, plastic.
	#19	11/60					SILTY CLAY; dark gray–brown gray, moist–dry, very stiff, plastic.
110	#20	60/60			CL		SILTY CLAY; gray brown, minor blue gray, moist–dry, very stiff, moderate plasticity.
115	#21	8/60					
120	#22	10/60					CLAY–SITLY CLAY; medium–dark gray, moist, stiff, plastic.
125	#23	60/60					CLAY–SILTY CLAY; dark gray, moist–moderately dry, very stiff–hard, moderate–slight plasticity.
130	#24	60/60					
135	#25	60/60					CLAY; brown gray–gray, dry, very stiff, slight plasticity.
140	#26	18/60					

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-23

FIELD ENGINEER D.H. Cox
EDITED BY J. Hadsell
CHECKED BY J. Hadsell
TOTAL DEPTH 252 ft.
COORDINATES N 338,115.1 E 1,553,062.2
DATE BEGAN 8/16/88
DATE FINISHED 8/17/88
GROUND SURFACE EL. 13.76 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE, RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
110	#26	18/60		0.5–1.0	CL		CLAY/SILTY CLAY; medium to dark gray, brown gray, dry, very stiff – hard, non-plastic.
115	#27	60/60		3.5–3.0			
150	#28	60/60		3.5–4.5			
155	#29	60/60		4.0–4.5			CLAY/SILTY CLAY; dark gray, dry, hard, non-plastic, brittle.
160	#30	60/60		3.5			
165	#31	55/60		4.0–3.0			
170	#32	14/60		4.5			
175	#33	60/60		3.5–4.5			
180	#34	8/60		3.0			SILTY CLAY; dark gray, dry to moist, very stiff, slightly to non-plastic, increasing sand.
185	#35	4/60		1.0	CH		SILTY SANDY CLAY; medium brown, moist, stiff, plastic.
190	#36	0/60			GC		Shaker; sand and gravel in clay; wet, soft.
195	#37	48/60		4.0–3.0	CL		SANDY CLAY; medium gray – brown gray, moist, very stiff – hard, slightly plastic with increasing plasticity.
200	#38	25/60		4.0–4.5			SILTY CLAY; gray brown, dry, hard, non-plastic, minor sand.
205	#39	15/60		3.0			SANDY CLAY; medium brown, moist, very stiff, moderately plastic.
210	#40	60/60		3.0–3.5			SANDY CLAY: brown gray; moist to dry, very stiff, slightly to non-plastic.

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB-23

FIELD ENGINEER D.H. Cox
EDITED BY J. Hodsoll
CHECKED BY J. Hodsoll
TOTAL DEPTH 252 ft.
COORDINATES N 338,115.1 E 1,563,062.2
DATE BEGAN 8/16/88
DATE FINISHED 8/17/88
GROUND SURFACE EL. 13.76 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	DRIVE/RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS	PROFILE	DESCRIPTION
210	#40	60/60		3.0	CL		SANDY CLAY; blue gray, predominantly dry, very stiff – hard, slightly to non-plastic.
215	#41	60/60		3.5–4.5			
					SC		CLAYEY SAND; gray brown, wet, soft, plastic.
220	#42	60/60		1.0–4.5			SILTY CLAY; dark gray, moist to dry, stiff to very stiff – hard, slightly to non-plastic.
225	#43	11/60		3.0			
230	#44	40/60		3.5			SILTY CLAY; dark gray, moist, very stiff, slightly plastic.
235	#45	60/60		4.5–3.5	CL		CLAY/SILTY CLAY; predominantly hard, very stiff – hard, slightly to non-plastic.
240	#46	60/60		4.5			
245	#47	60/60		3.5–4.5			SILTY CLAY; medium dark gray, dry, very stiff – hard, non-plastic.
250	#48	50/60		4.5			SANDY CLAY; brown – gray brown, predominantly dry, hard, slightly to non-plastic.
255							TOTAL DEPTH 252 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Developement Co.
DRILLING METHOD: Mud Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD File No. 0323.DWG

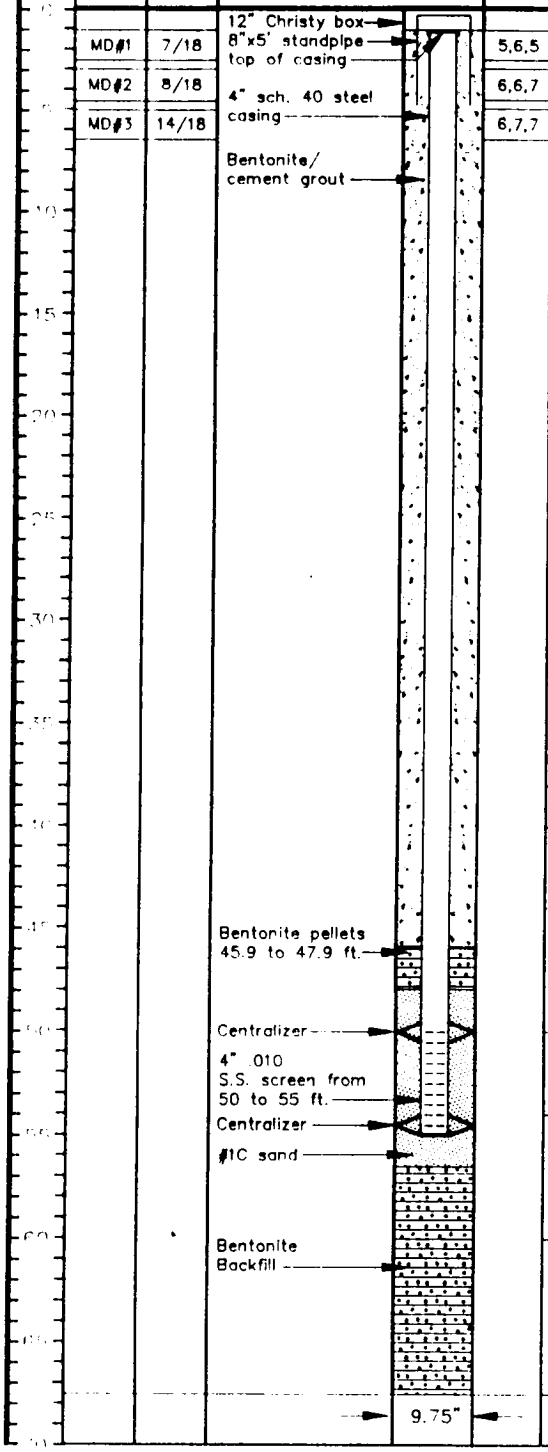
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-4(B1)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 67.5 feet

COORDINATES N 338,498.7, E 1,553,744.2
DATE BEGAN 9/7/88
DATE FINISHED 9/8/88
GROUND SURFACE EL. 6.55 ft.



USCS SYMBOL	DESCRIPTION
OL	SANDY SILTY GRAVELLY CLAY; dark brown black, dry, stiff, non-plastic, organic.
CH	SILTY CLAY; light to medium gray brown, moist, soft, plastic.
CL	SILTY CLAY; medium brown, moist, stiff, moderate plasticity.
CL-SC	SANDY CLAY; medium brown, moist, stiff, moderate plasticity.
CL	SILTY CLAY; medium brown, moist, stiff, moderate plasticity. GRAVELLY SANDY CLAY; medium brown, wet, soft, medium subangular gravel with fine to medium subangular to sub-rounded sand. SANDY CLAY; medium brown, moist, soft to stiff, moderate plasticity. CLAY/SILTY CLAY; medium dark brown, moist, stiff, moderate plasticity.
GC	SANDY SILTY CLAYEY GRAVEL; predominantly coarse gravels with sand; fine to coarse, subangular to subrounded, mod. to poorly sorted in clay; medium brown, wet, soft, moderate plasticity.
SC	SANDY CLAY/CLAYEY SAND; medium gray, wet, soft.
CL	CLAY/SILTY CLAY; medium gray, moist to wet, soft, slightly to moderately plastic.
SC	CLAYEY SAND/GRAVEL; fine to medium, subangular to sub-round, moderately to poorly sorted sand with predominantly medium angular gravel in clay; medium gray, wet, soft moderate plasticity. CLAY/SILTY CLAY; medium gray, moist, stiff, slightly plastic.
GC	CLAYEY SANDY GRAVEL; medium to coarse gravel and sand in clay; medium gray, stiff to hard, indurated, slightly to non-plastic.
CH	SANDY CLAY; medium gray brown, moist, stiff, plastic.
CL	SILTY CLAY; olive to brown gray, moist to dry, stiff, moderate plasticity. Grading to sandy clay.
	TOTAL DEPTH 67.5 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE AF_481.DWG

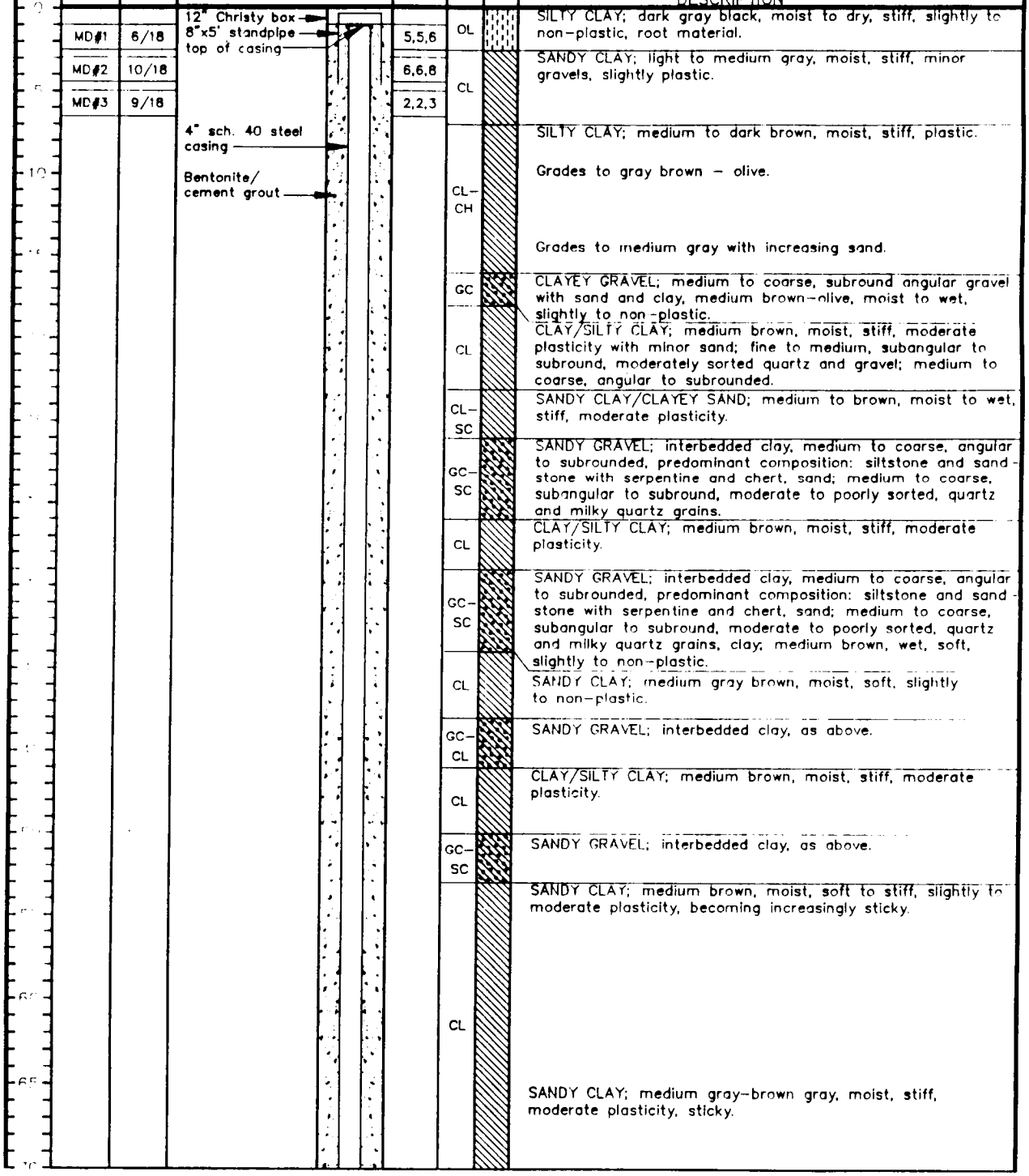
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-5(C)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 160 feet

COORDINATES N 338,477.9 E 1,553,704.9
DATE BEGAN 9/13/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 6.7 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-5C.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-5(C)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 160 feet

COORDINATES N 338,477.9 E 1,553,704.9
DATE BEGAN 9/13/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 6.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
70					SC		CLAYEY SAND; predominantly fine to medium, subangular-subround, moderately to poorly sorted quartz in clay; med. brown gray, moist, stiff, moderate plasticity, sticky.
75					CL		SANDY CLAY; medium brown gray, moist, stiff, moderate plasticity.
80					CH		CLAY/SILTY CLAY; gray brown, gray, moist, soft, very plastic.
85					CL		SANDY CLAY; gray brown, gray, moist, soft, moderate plas. with fine sorted sand.
90					SC		CLAYEY SAND; fine to medium, subangular to subround, mod. to well sorted in clay; brown gray, moist to wet, slightly to non-plastic, minor gravel.
95					CL		SANDY CLAY; brown gray, moist-wet, soft, slightly to non plastic.
100					GC		SANDY GRAVEL; clay interbed, abundant, gravel, pred. medium, round, moderately sorted, sandstone, siltstone and cherts, sand; medium to coarse, subangular subround, moderately sorted in clay; brown gray, wet, soft, non to slightly plastic.
					CL		SANDY CLAY; medium brown gray, moist, stiff, mod. plas. with sand; medium coarse, subround, moderately sorted.
105					CH		CLAYEY SAND; medium coarse, subround, moderately sorted with clay; gray brown, moist, stiff, mod. plas., minor gravel. SANDY CLAY; gray brown, moist, stiff, plastic.
110					CL		SANDY CLAY/SILTY CLAY; dark gray brown, moist, stiff, mod. plastic, minor coarse sand.
115					CH		CLAY/SILTY CLAY; medium gray brown, moist, stiff, very plastic, sticky.
120							
125							
130					SC		CLAYEY SAND; predominantly medium, rounded, moderate to well sorted quartz in clay; gray brown, moist, plastic, sticky.
135					CH		CLAY/SILTY CLAY; medium gray, moist, stiff, plastic, sticky.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-5C.DWG

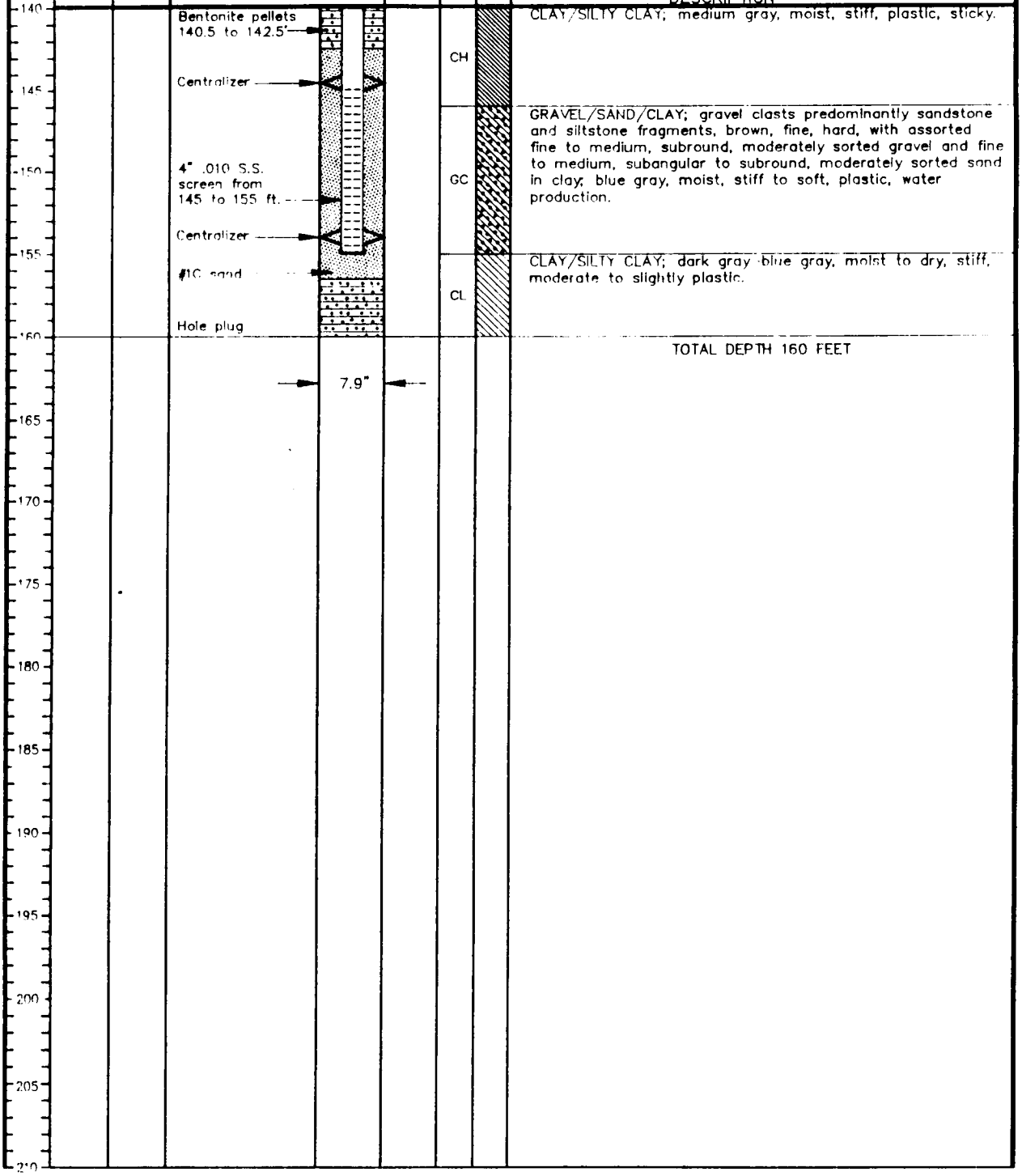
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-5(C)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 160 feet

COORDINATES N 338,477.9 E 1,553,704.9
DATE BEGAN 9/13/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 6.7 ft.



CLAY/SILTY CLAY; medium gray, moist, stiff, plastic, sticky.

GRAVEL/SAND/CLAY; gravel clasts predominantly sandstone and siltstone fragments, brown, fine, hard, with assorted fine to medium, subround, moderately sorted gravel and fine to medium, subangular to subround, moderately sorted sand in clay; blue gray, moist, stiff to soft, plastic, water production.

CLAY/SILTY CLAY; dark gray blue gray, moist to dry, stiff, moderate to slightly plastic.

TOTAL DEPTH 160 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-5C.DWG

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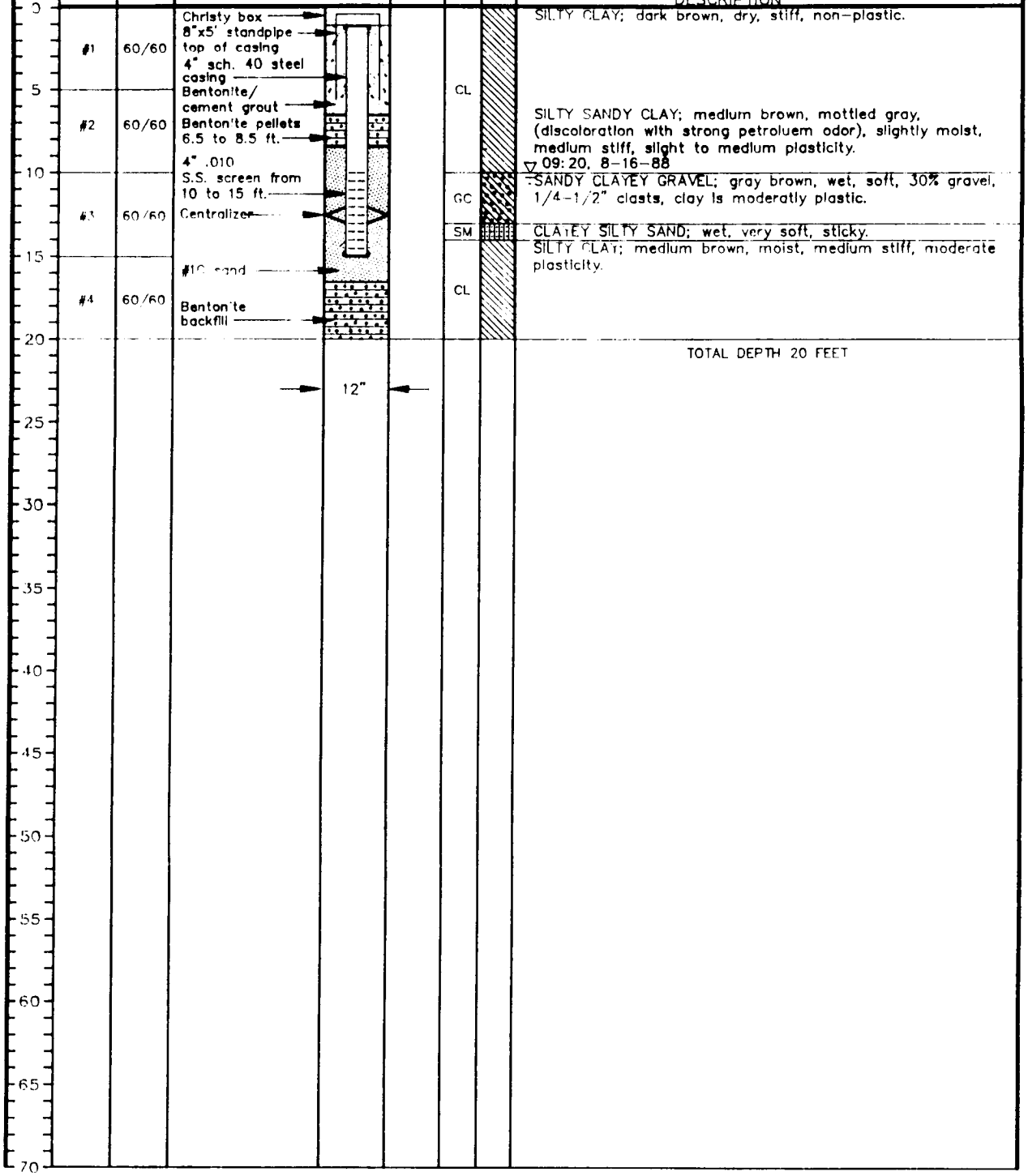
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-6(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 20 feet

COORDINATES N 337,751.8 E 1,553,628.1
DATE BEGAN 8/16/88
DATE FINISHED 8/16/88
GROUND SURFACE EL. 9.66 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-6A.DWG

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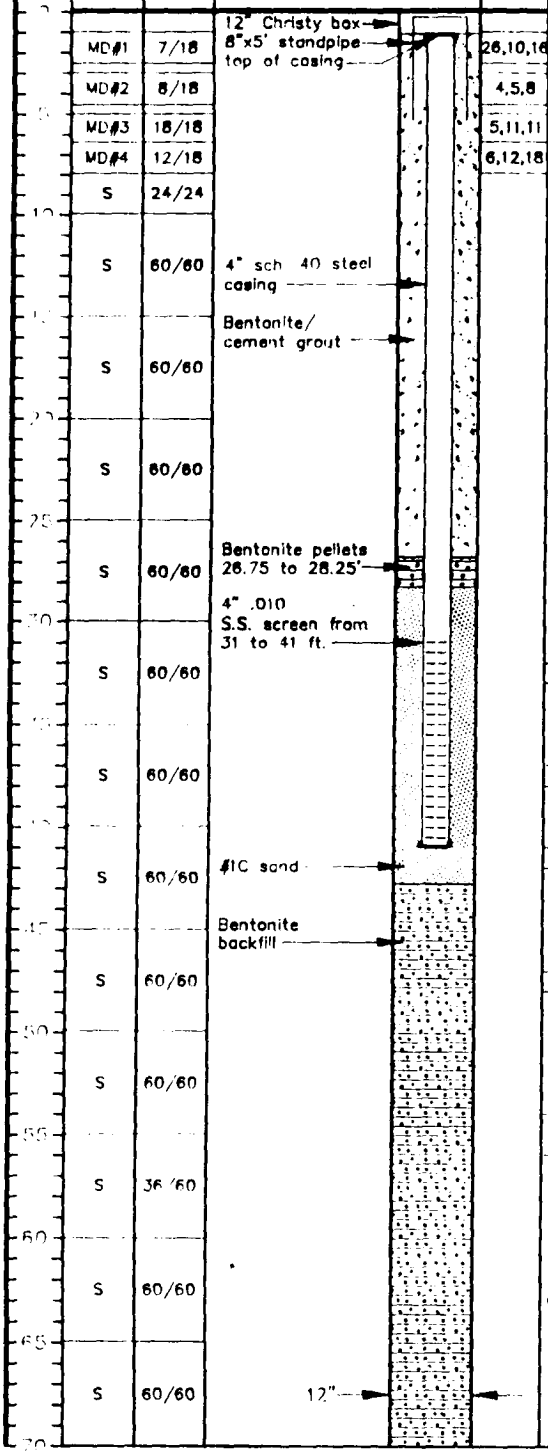
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-7(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 70 feet
COORDINATES N 336,916.6 E 1,553,377.6
DATE BEGAN 8/9/88
DATE FINISHED 8/10/88
GROUND SURFACE EL. 13.7 ft.



TOTAL DEPTH 70 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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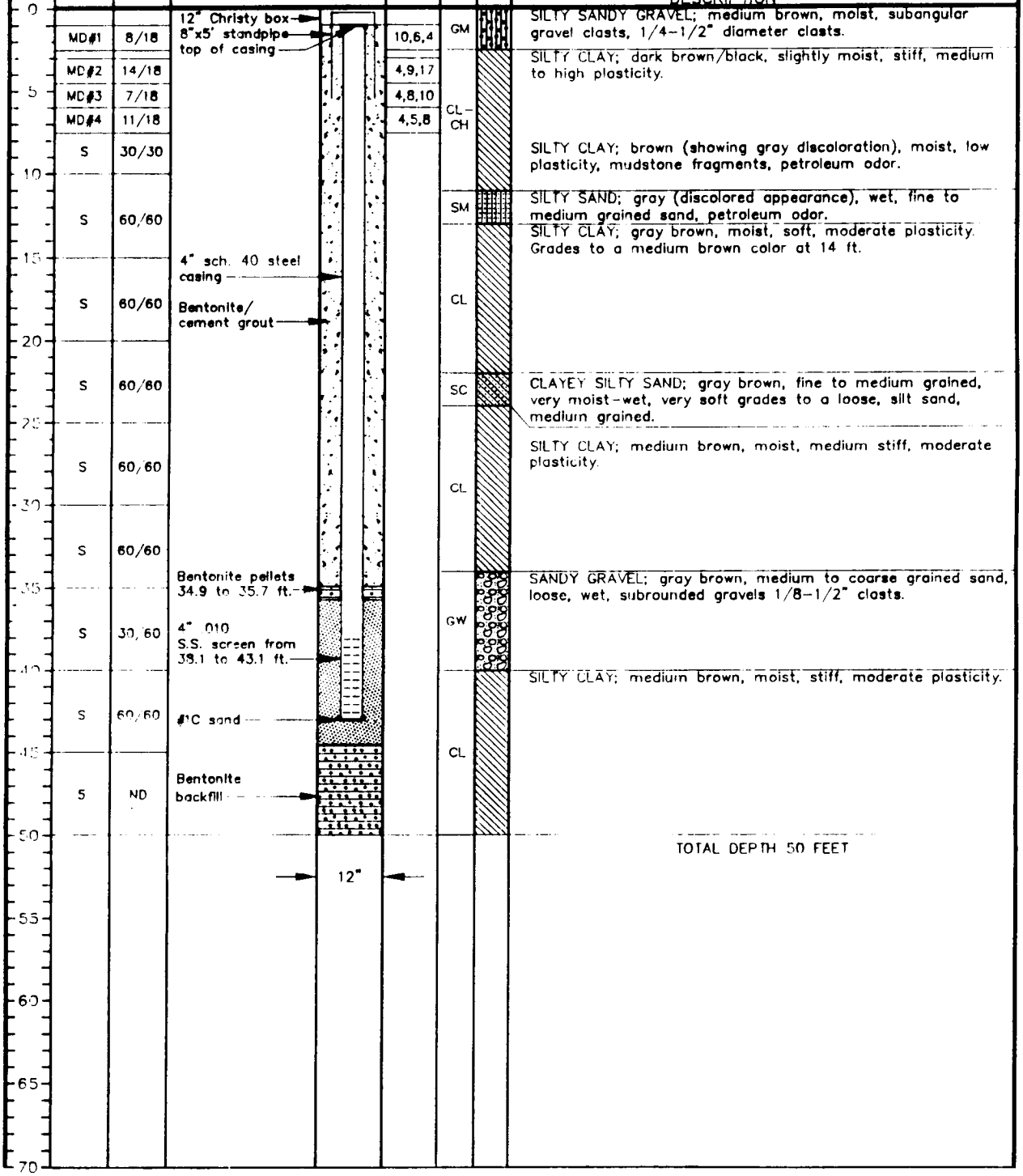
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

AutoCAD FILE: BS-7A.DWG

BORING NO. W5-8(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 50 ft.

COORDINATES N 337,193.8 E 1,353,499.5
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 13.47 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-8A.DWG

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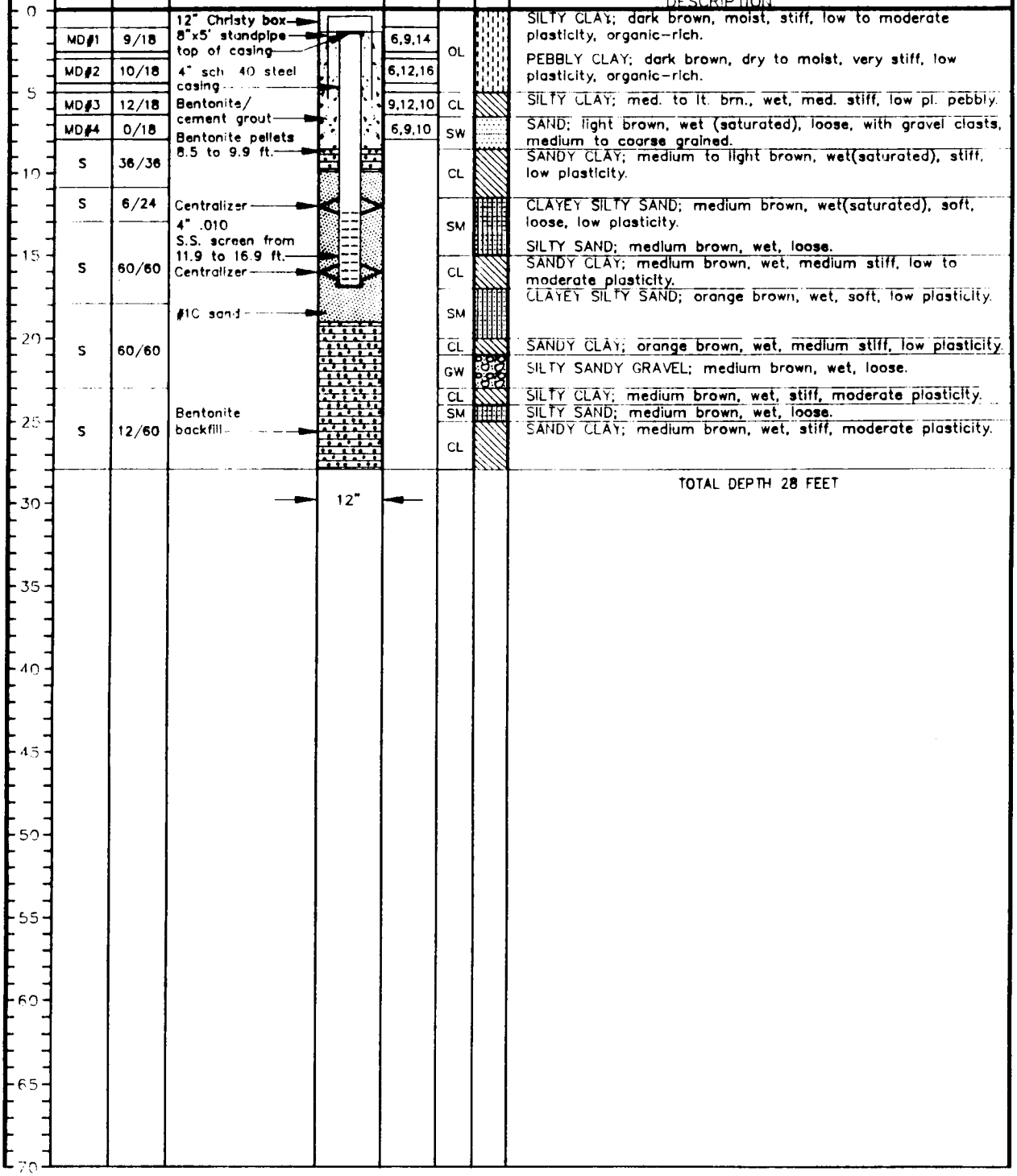
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-9(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 28 feet

COORDINATES N 338,107.9 E 1,553,067.7
DATE BEGAN 8/2/88
DATE FINISHED 8/2/88
GROUND SURFACE EL. 13.47



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

A:\ACAD FILE W5 9A.DWG

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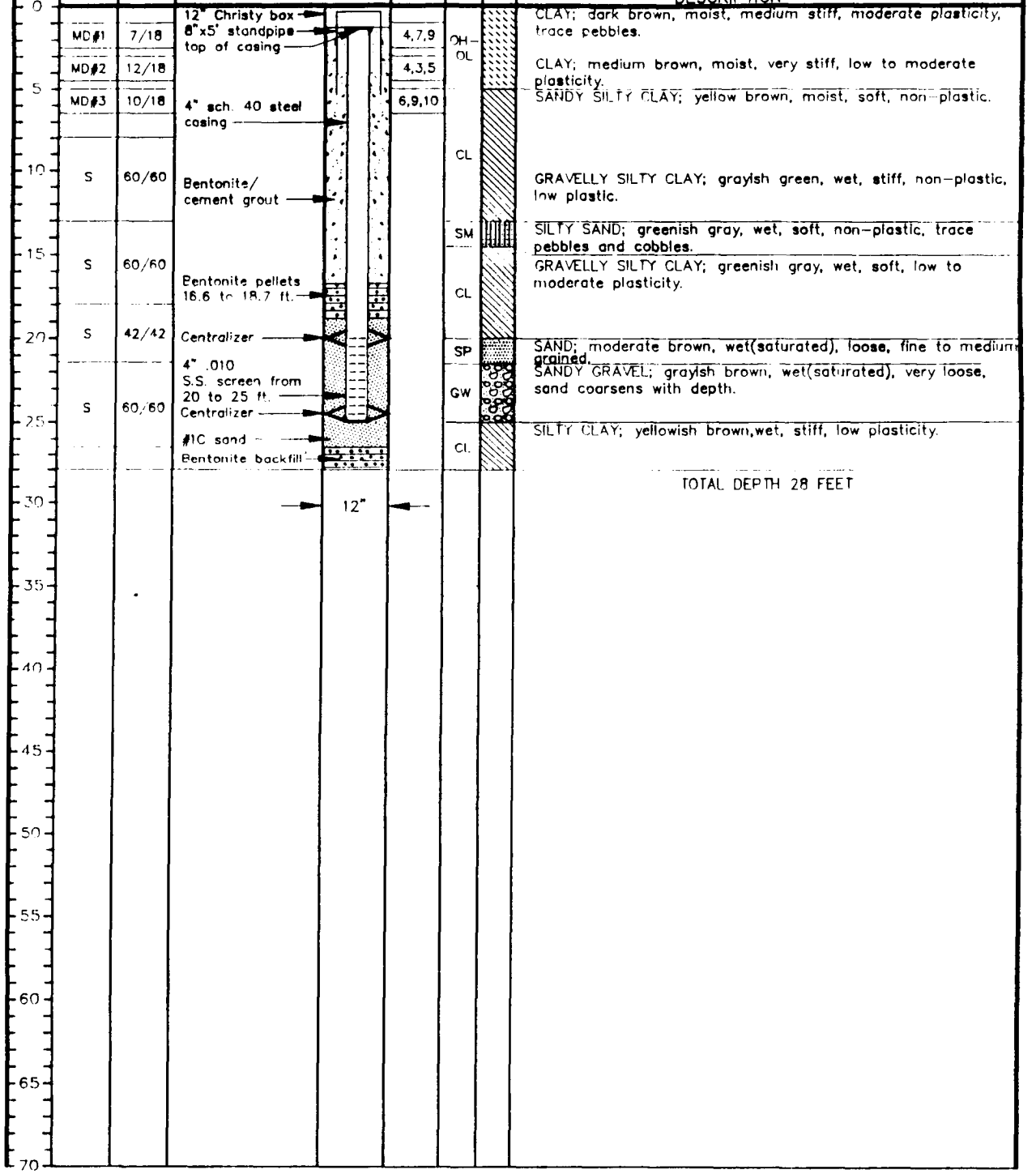
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-10(A)

FIELD GEOLOGIST Williams/Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 28 feet

COORDINATES N 337,143.2 E 1,553,410.7
DATE BEGAN 8/19/88
DATE FINISHED 8/22/88
GROUND SURFACE EL. 13.47



DESCRIPTION

CLAY; dark brown, moist, medium stiff, moderate plasticity, trace pebbles.

CLAY; medium brown, moist, very stiff, low to moderate plasticity.

SANDY SILTY CLAY; yellow brown, moist, soft, non-plastic.

GRAVELLY SILTY CLAY; grayish green, wet, stiff, non-plastic, low plastic.

SILTY SAND; greenish gray, wet, soft, non-plastic, trace pebbles and cobbles.

GRAVELLY SILTY CLAY; greenish gray, wet, soft, low to moderate plasticity.

SAND; moderate brown, wet(saturated), loose, fine to medium grained.

SANDY GRAVEL; grayish brown, wet(saturated), very loose, sand coarsens with depth.

SILTY CLAY; yellowish brown,wet, stiff, low plasticity.

TOTAL DEPTH 28 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-10A.DWG

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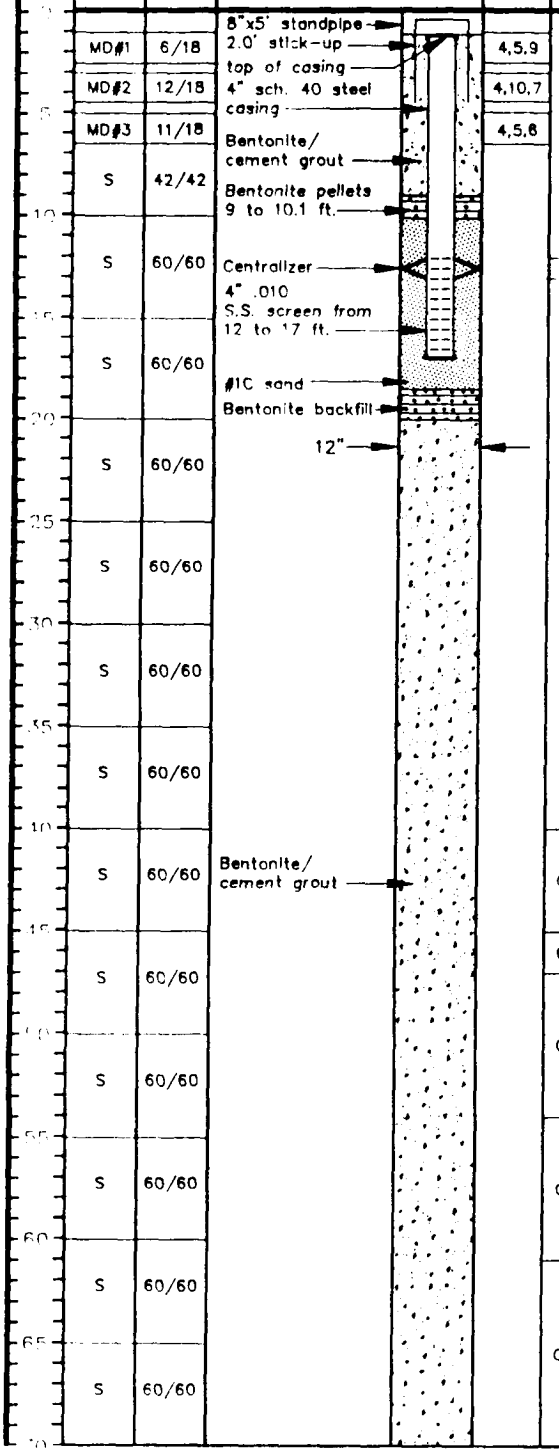
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-14(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 70 feet
COORDINATES N 338,214.1 E 1,553,410.7
DATE BEGAN 8/12/88
DATE FINISHED 8/15/88
GROUND SURFACE EL. 7.6 FT.



DESCRIPTION

SANDY SILTY CLAY; medium brown, mottled brown black, slightly moist, soft to medium stiff, moderate plasticity.

SANDY SILTY CLAY; gray brown, discolored appearance, petroluem odor, slightly moist, medium stiff, moderate plasticity.

SAND; gray, wet, loose, medium grained, petroleum odor.

SANDY SILTY CLAY; medium brown, mottled gray, moist, medium stiff, moderate plasticity, slight petroleum odor.
3" lens of sand; gray, wet, petroleum odor.
SILTY CLAY; moderate brown, moist, medium stiff, moderate plasticity.

SANDY SILTY CLAY; moderate brown, moist, medium stiff, moderate plasticity, mudstone fragments.

SILTY CLAY; gray brown, moist, very stiff, plastic.

SANDY CLAY; gray brown, moist, soft, moderate plasticity.

SILTY CLAY; gray brown, mottled gray with red oxidation, moist, stiff, plastic.

SANDY SILTY CLAY; brown with gray red mottles, moist, soft to very soft, low plasticity.

SILTY CLAY; moderate brown, gray mottling, moist, medium stiff, highly plastic.

TOTAL DEPTH 70 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE W5-14A.DWG

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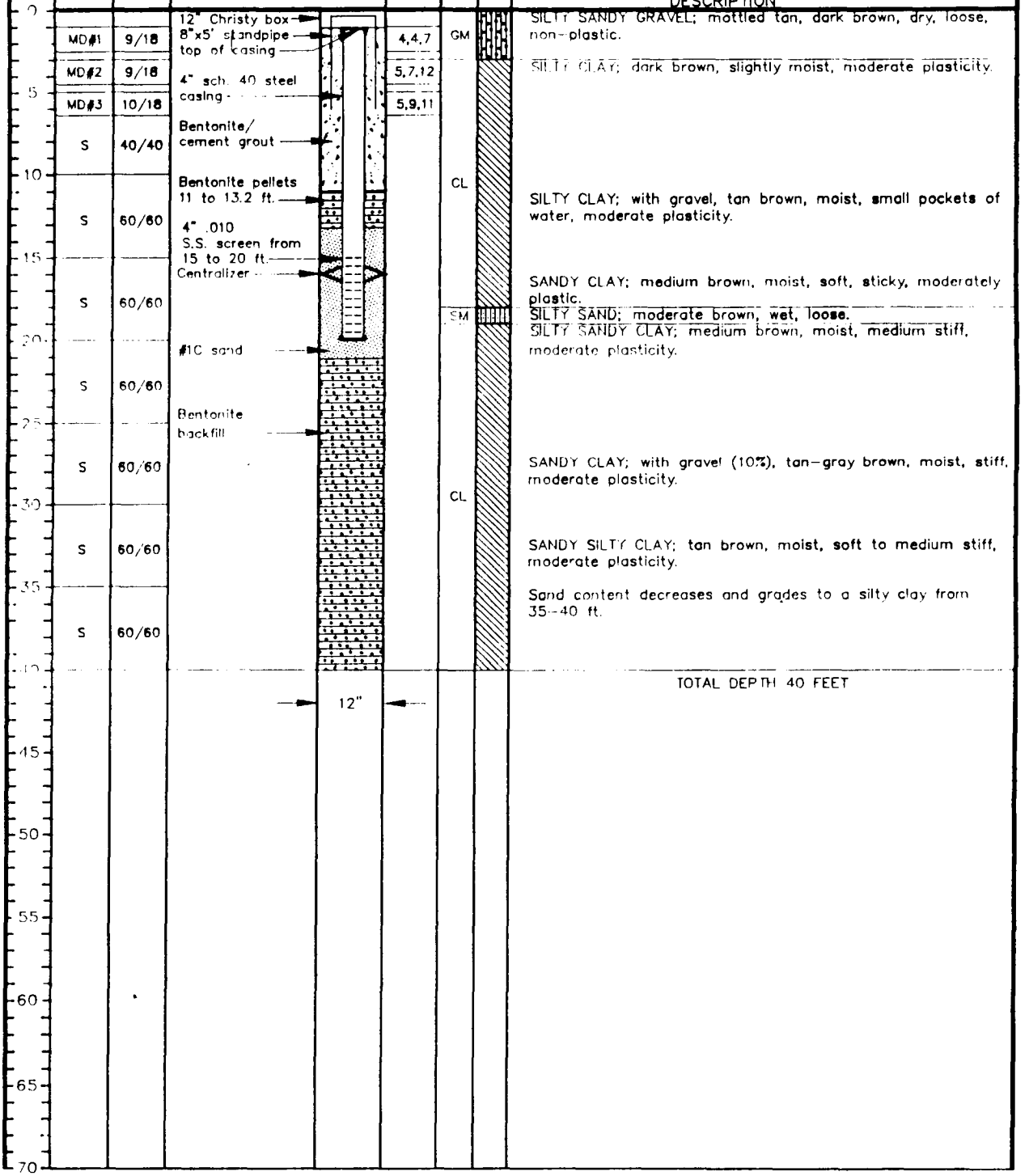
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-15(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 40 feet

COORDINATES N 337,958.3, E 1,553,451.5
DATE BEGAN 8/16/88
DATE FINISHED 8/17/88
GROUND SURFACE EL. 10.3 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-15A.DWG

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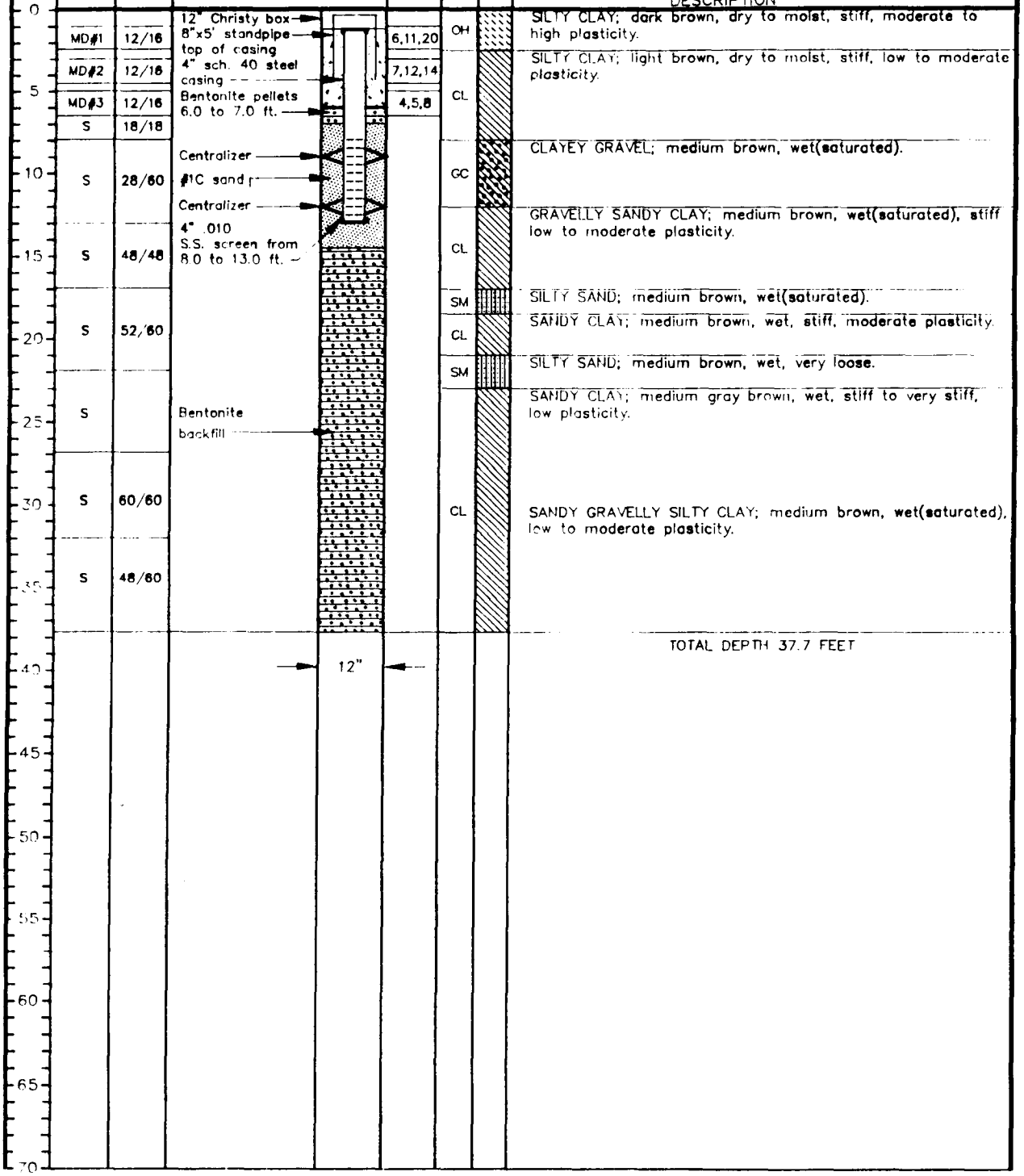
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-16(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 37.7 feet

COORDINATES N 336,630.8 E 1,553,269.6
DATE BEGAN 6/15/88
DATE FINISHED 6/16/88
GROUND SURFACE EL. 12.05 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-16A.DWG

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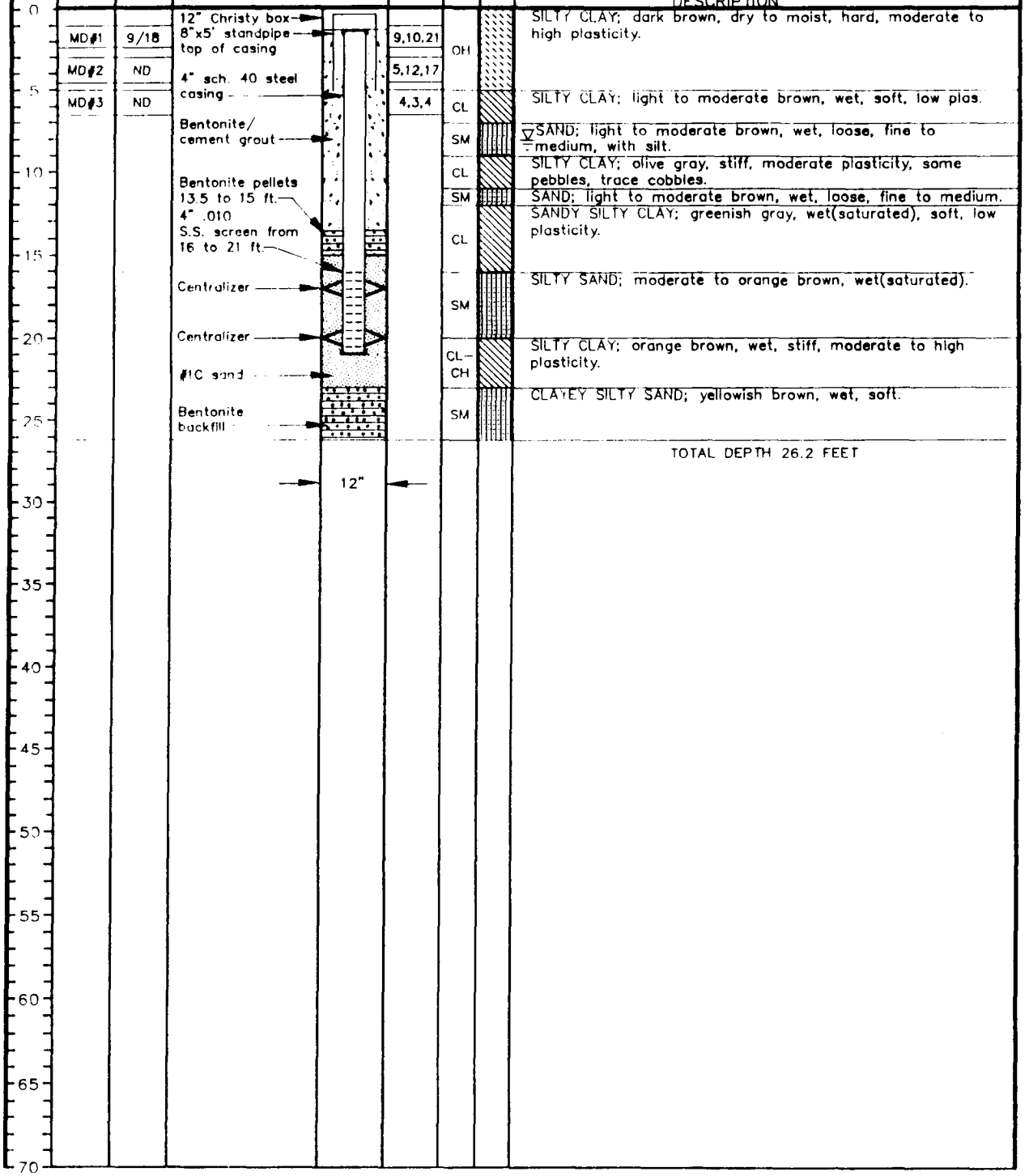
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-17(A)

FIELD GEOLOGIST G. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 26.2 feet

COORDINATES N 336,692.9 E 1,553,136.6
DATE BEGAN 8/17/88
DATE FINISHED 8/18/88
GROUND SURFACE EL. 12.6



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-17A.DWG

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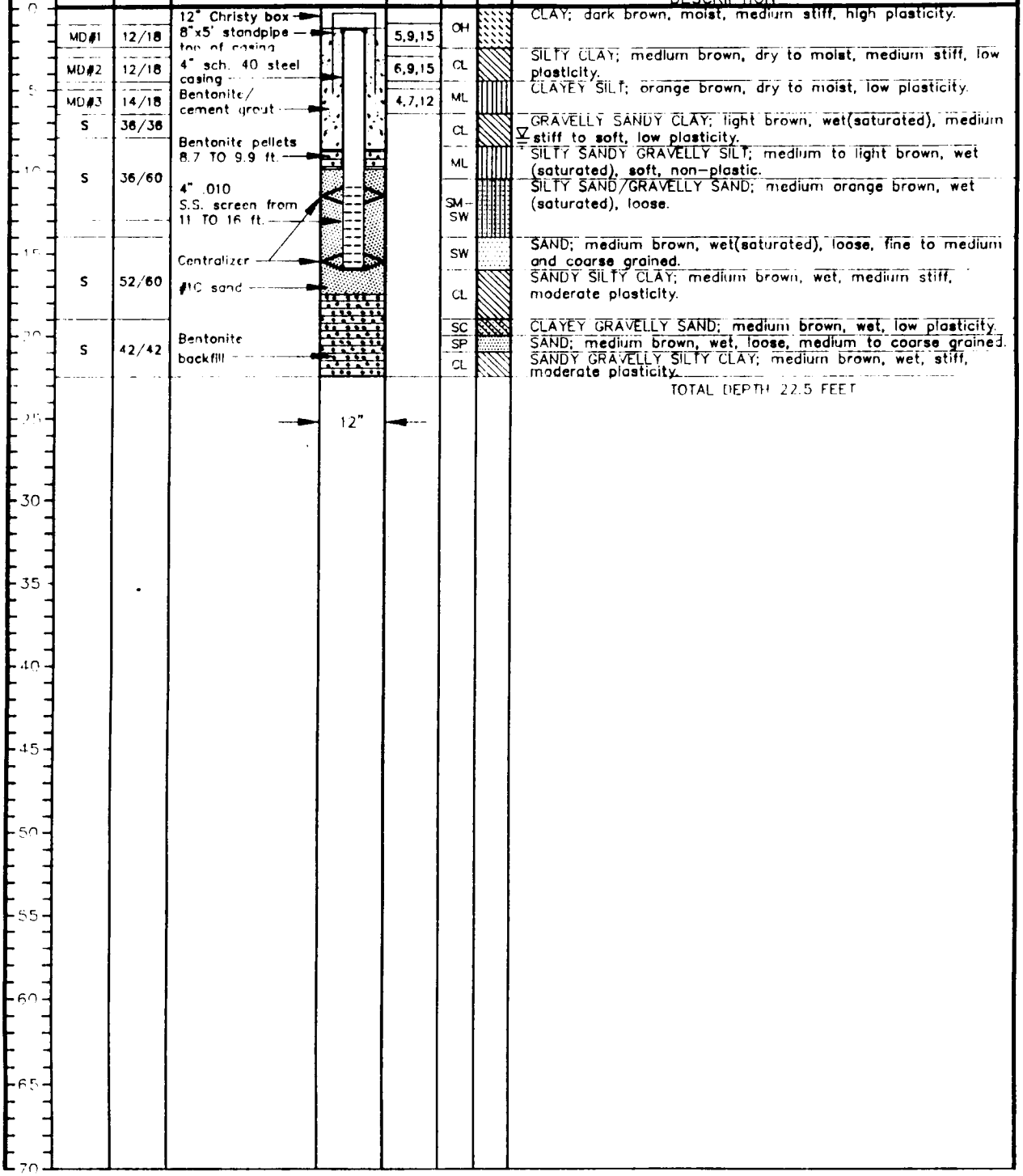
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-18(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 22.5 ft.

COORDINATES N 336,525.1, E 1,553,246.1
DATE BEGAN 8/10/88
DATE FINISHED 8/10/88
GROUND SURFACE EL. 12.1 ft.



CLAY; dark brown, moist, medium stiff, high plasticity.

SILTY CLAY; medium brown, dry to moist, medium stiff, low plasticity.

CLAYEY SILT; orange brown, dry to moist, low plasticity.

GRAVELLY SANDY CLAY; light brown, wet(saturated), medium stiff to soft, low plasticity.

SILTY SANDY GRAVELLY SILT; medium to light brown, wet (saturated), soft, non-plastic.

SILTY SAND/GRAVELLY SAND; medium orange brown, wet (saturated), loose.

SAND; medium brown, wet(saturated), loose, fine to medium and coarse grained.

SANDY SILTY CLAY; medium brown, wet, medium stiff, moderate plasticity.

CLAYEY GRAVELLY SAND; medium brown, wet, low plasticity.

SAND; medium brown, wet, loose, medium to coarse grained.

SANDY GRAVELLY SILTY CLAY; medium brown, wet, stiff, moderate plasticity.

TOTAL DEPTH 22.5 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W5-18A.DWG

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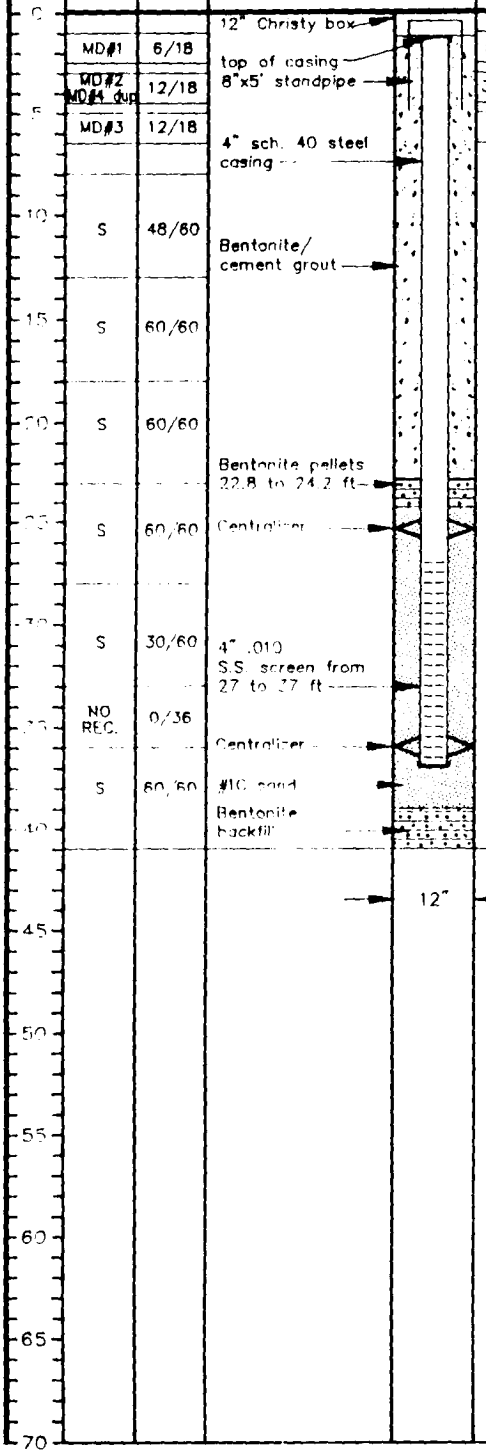
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W5-19(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 41 feet

COORDINATES N 338,583.0 E 1,553,093.2
DATE BEGAN 8/3/88
DATE FINISHED 8/4/88
GROUND SURFACE EL. 12.5 ft.



DESCRIPTION

PEBBLY CLAY; black, moist, stiff, high plasticity, organic-rich.

SILTY CLAYEY SAND; light brown, moist to wet, with pebbles.

SANDY SILTY CLAY; light greenish brown with red, wet, medium stiff, moderately plasticity.

SANDY PEBBLY SILTY CLAY; medium gray, wet (saturated), strong petroleum odor.

SILTY SAND; medium gray, wet, loose.

SILTY CLAY; medium gray with orange mottling, wet, very soft, moderate plasticity, strong petroleum odor.

SILTY SAND; orange brown mottled, moist to wet, medium dense.

SANDY SILTY CLAY; orange to brown mottled, wet, very stiff, low plasticity.

CLAYEY SAND; medium orange brown, wet (saturated).

SANDY SILTY CLAY; medium orange brown, wet, stiff, low plasticity.

CLAYEY SILT; medium orange brown, wet, stiff, low plasticity.

SILTY SAND; medium orange brown, wet (saturated), dense.

SILTY SAND; orange brown and gray, wet (saturated), fine to medium grained sand.

SAND; medium brown, wet (saturated), medium dense, fine to coarse.

SILTY CLAY; medium brown with gray and orange spots, wet, stiff, moderate plasticity.

TOTAL DEPTH 41 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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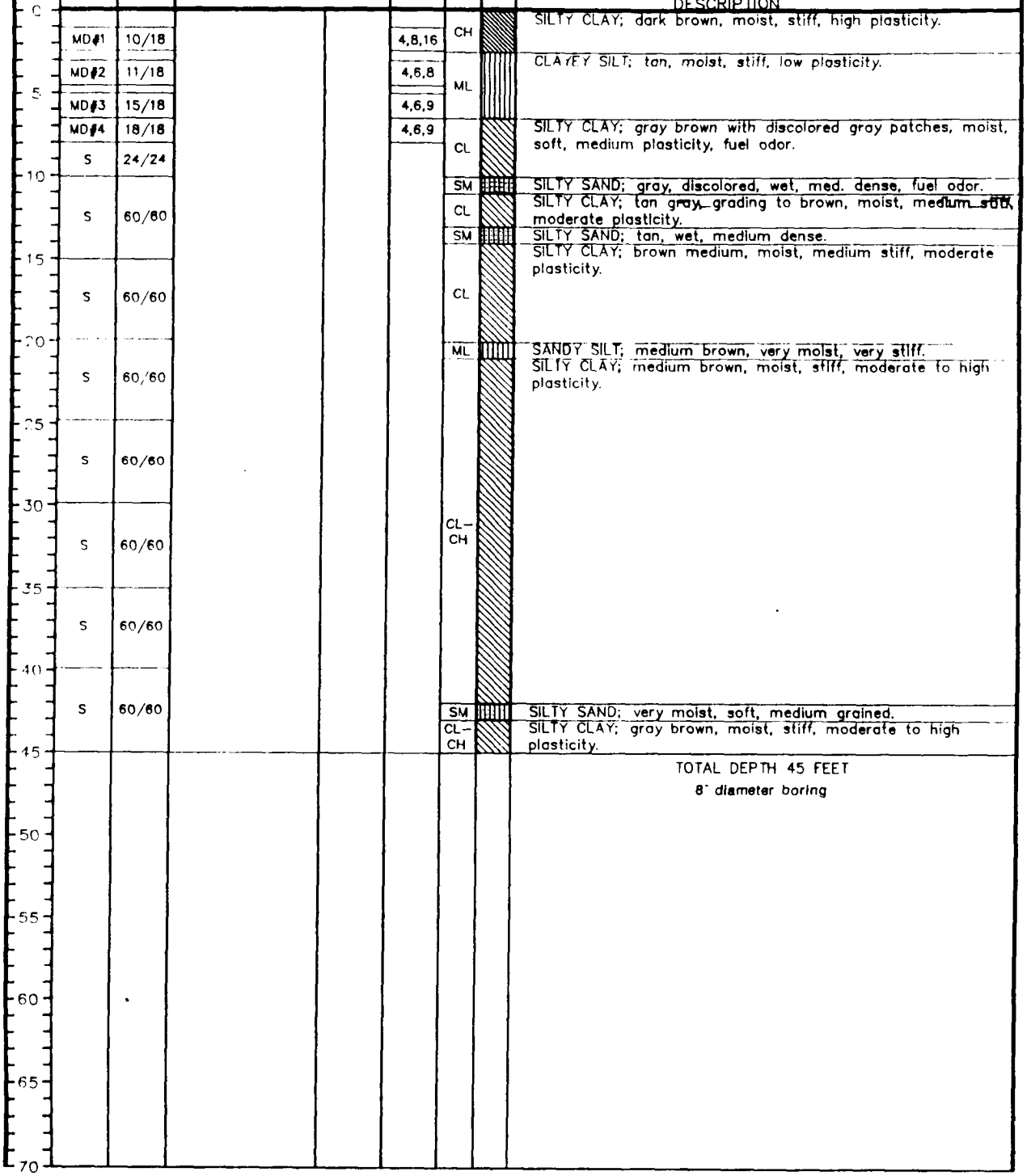
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB5-1

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 45 feet

COORDINATES N 337,745.0 E 1,553,837.4
DATE BEGAN 8/2/88
DATE FINISHED 8/2/88
GROUND SURFACE EL. 9.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB5-1.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING LOGS OF SITE 6 WELLS
WILL BE INCLUDED IN FUTURE REPORTS

BORING LOGS OF SITE 7 WELLS
WILL BE INCLUDED IN FUTURE REPORTS

BORING LOGS OF SITE 8 WELLS
WILL BE INCLUDED IN FUTURE REPORTS

APPENDIX I

SECTION 9.0 – SITE 9 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#7

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 336,983.7 E 1,548,070.8
DATE BEGAN 7/18/88
DATE FINISHED 7/20/88
GROUND SURFACE EL. 14.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY ( ) TSF	USCS SYMBOL	PROFILE	DESCRIPTION
0							SILTY CLAY; light to medium brown, moist, medium stiff, low to medium plastic, top – highly organic.
							Logged from shaker
5	#1	20/60			CL		SILTY SANDY CLAY; medium gray, moist, stiff, medium plastic.
10	#2	4/60			CH		SILTY CLAY; mottled medium brown and light gray, very moist, medium stiff, high plasticity.
15	#3	5/60					
20	#4	2/60			CL		SILTY CLAY; medium gray, moist, low plasticity.
25	#5	17/60					SILTY SANDY CLAY; medium gray, moist, stiff, low to medium plasticity.
30	#6	0/60			SP		SAND; medium to coarse grained.
							Logged from shaker.
35	#7	13/60			CL		SANDY SILTY CLAY; medium brown, wet, medium stiff, low plasticity.
40	#8	8/60					SANDY SILTY CLAY; grayish brown, very moist, medium stiff, low to medium plasticity.
45	#9	20/60					SANDY SILTY CLAY; mottled medium brown and gray, very moist, medium stiff, low to medium plasticity.
50	#10	0/60			SC		CLAYEY SAND; medium grained.
55	#11	14/60			CL–CH		SILTY CLAY; medium brown, very moist, medium stiff, medium to high plasticity.
60	#12	20/60					SILTY CLAY; mottled medium brown and gray, very moist, medium stiff, medium to high plasticity.
65	#13	22/60			CH		SILTY CLAY; medium gray, moist, medium stiff, high plasticity.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB7.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#7

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 336,983.7 E 1,548,070.8
DATE BEGAN 7/18/88
DATE FINISHED 7/20/88
GROUND SURFACE EL. 14.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	22/60			CL–CH		SILTY CLAY; medium to dark gray, moist, medium stiff, medium to high plasticity.
75	#15	25/60					
80	#16	15/60					SANDY SILTY CLAY; medium gray, wet, medium stiff, medium plasticity.
85	#17	10/60					
90	#18	7/60					SILTY CLAY; medium gray, moist, stiff, medium plasticity.
95	#19	35/60					
100	#20	4/60					SILTY SANDY CLAY; olive gray, wet, medium stiff, low plasticity.
105	#21	0/60			SW		SAND; and gravel, medium to coarse grained.
110	#22	0/60			SC–GC		SAND/GRAVEL; medium to coarse grained, some clayey sands.
115	#23	0/60			SW		SAND; some gravel, medium to coarse grained.
120	#24	0/66			SP		SAND; scattered gravel, medium grained sand.
125	#25	44/60			CH		SILTY CLAY; medium gray, moist, very stiff, high plasticity.
130	#26	60/60					SILTY CLAY; dark gray, moist, very stiff, high plasticity.
135	#27	60/60					SILTY CLAY; mottled dark gray and olive brown, moist, stiff, high plasticity.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF_GB7.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#7

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 338,983.7 E 1,548,070.8
DATE BEGAN 7/18/88
DATE FINISHED 7/20/88
GROUND SURFACE EL. 14.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	56/60			CH		SILTY CLAY; mottled medium gray and olive brown, moist, stiff, high plasticity.
145	#29	60/60					
150	#30	60/60					
155	#31	60/60					
160	#32	60/60					
165	#33	55/60			CL–CH		SILTY CLAY; trace sand, medium gray, very moist, soft, medium plasticity.
170	#34	57/60					SILTY CLAY; medium to dark gray, moist, stiff, medium plasticity, trace rootlets.
175	#35	0/60			GW		SAND/GRAVEL; medium to coarse grained sand, small to large gravel.
180	#36	0/60			SP		SAND; medium to coarse grained sand, scattered gravel.
185	#37	0/60					
190	#38	0/60			SW		SAND; coarse grained sand with scattered gravel.
195	#39	0/60					
200	#40	8/60			ML		SANDY SILT; mottled medium brown and olive gray, very moist to wet, soft, low plasticity, scattered gravel.
205	#41	29/60			CH		SILTY CLAY; dark gray, moist, very stiff, high plasticity, scattered gravel.
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB7.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#7

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 336,983.7 E 1,548,070.8
DATE BEGAN 7/18/88
DATE FINISHED 7/20/88
GROUND SURFACE EL. 14.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	36/60			ML		CLAYEY SANDY SILT; olive brown, very moist, medium stiff, low plasticity.
215	#43	25/60					CLAYEY SILT; medium gray, very moist, soft, low plasticity, trace sand.
220	#44	30/60			CL		SANDY SILTY CLAY; medium gray, moist, stiff, medium plasticity.
225	#45	4/60			ML		SANDY CLAYEY SILT; olive brown, wet, soft, low plasticity.
230	#46	55/60			CL		SILTY CLAY; dark gray, moist, meidum stiff, low to medium plasticity.
235	#47	44/60			ML		CLAYEY SILT; dark gray, very moist, medium stiff, low plasticity.
240	#48	43/60			CL		SILTY CLAY; dark gray, moist, stiff, low to medium plasticity, trace sand.
245	#49	54/60					
250	#50	60/60			ML		CLAYEY SILT; dark gray, very moist to wet, medium stiff, low plasticity.
255	#51	28/60			CL		SILTY CLAY; mottled brown and gray, moist, stiff, medium plasticity.
260							TOTAL DEPTH 260 FEET 4-1/2" diameter boring
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF_GB7.DWG

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BORING NO. GB#8

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 336,699.7 E 1,548,645.9
DATE BEGAN 7/13/88
DATE FINISHED 7/15/88
GROUND SURFACE EL. 16.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SILTY CLAY; dark gray to black, moist, medium stiff, medium plasticity.
5	#1	14/60					
10	#2	0/60			SP		SAND; dark gray with scattered white, medium to coarse grained, angular to subangular.
15	#3	0/60					SAND; black to dark gray, medium grained, subrounded.
20	#4	0/60					No recovery in sampler, no cuttings on shaker.
25	#5	12/60			CL-SP		SILTY CLAY; greenish gray, moist, medium stiff, medium plasticity.
30	#6	3/60					SILTY CLAY; greenish gray, very moist, medium stiff, medium plasticity, with interbedded sand, dark gray, medium grained subangular.
35	#7	3/60			GP-CH		GRAVEL; dark gray to black with black sand, medium grained, sub to well rounded with interbedded buff silty clay.
40	#8	4/60			CL		SANDY SILTY CLAY; buff to brown, moist, soft, low plasticity.
45	#9	30/60					SILTY SANDY CLAY; buff to grayish brown, very moist, stiff, low to medium plasticty with scattered gravel.
50	#10	26/60			CH		SILTY CLAY; olive brown, wet, medium stiff, medium to high plasticity.
55	#11	0/60			SC		SAND; dark gray, medium grained rounded, scattered white with fines.
60	#12	0/60			SP		SAND; dark gray, medium to coarse grained, rounded.
65	#13	22/60			CH		SILTY CLAY, brown to gray, wet, medium stiff, high plasticity.
70	#14	34/60					SILTY CLAY; brownish gray, moist, medium stiff, high plasticity.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB8.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#8

FIELD GEOLOGIST C. Wallace
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet
COORDINATES N 336,699.7 E 1,548,645.9
DATE BEGAN 7/13/88
DATE FINISHED 7/15/88
GROUND SURFACE EL. 16.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	34/60			CH		SILTY CLAY; brownish gray, moist, medium stiff, high plasticity.
75	#15	0/60			SP		SAND; gray to black, medium to coarse grained, rounded.
80	#16	18/60			CL		SILTY SANDY CLAY; olive brown, moist, stiff, medium plasticity.
85	#17	0/60			SP		SAND; dark gray, medium grained, subrounded.
90	#18	2/60			CL		SILTY CLAY; brown, moist, stiff, medium plasticity.
95	#19	15/60			CH		SILTY CLAY; olive brown, wet, stiff, medium to high plasticity.
100	#20	28/60					
105	#21	6/60			CL-CH		SANDY SILTY CLAY; olive brown, moist, stiff, medium plasticity.
110	#22	15/60					
115	#23	21/60					SANDY SILTY CLAY; medium gray, moist, stiff, low to medium plasticity.
120	#24	22/60					SILTY CLAY; medium to dark gray, very moist, medium stiff, medium plasticity.
125	#25	14/60					SILTY CLAY; dark gray, moist, stiff, medium to high plasticity.
130	#26	56/60					
135	#27	48/60			CH		SILTY CLAY; dark gray and olive brown, moist, stiff, medium to high plasticity.
140	#28	30/60					SILTY CLAY; dark gray, moist, stiff, high plasticity.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB8.DWG

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BORING NO. GB#8

FIELD GEOLOGIST: C. Wallace
LOGGED BY: J. Hadsall
CHECKED BY: J. Hadsall
TOTAL DEPTH: 253 feet
COORDINATES: N 336,699.7 E 1,548,645.9
DATE BEGAN: 7/13/88
DATE FINISHED: 7/15/88
GROUND SURFACE EL.: 16.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY	BLOW SUMMARY	MEASURED CONSISTENCY OR HARDNESS	USCS SYMBOL	GRAPHIC LOG	DESCRIPTION
120	#28	30/60			CH		SILTY CLAY; dark gray, moist, stiff, high plasticity.
130	#29	40/60					SILTY CLAY; medium gray, moist, stiff, low plasticity.
140	#30	60/60					SILTY CLAY; dark gray, moist, hard, low to medium plasticity.
150	#31	58/60			CL		SANDY SILTY CLAY; dark gray, moist, stiff to hard, low plasticity.
160	#32	14/60					
170	#33	0/60					SAND; medium to coarse grained, scattered gravel and shell fragments.
180	#34	0/60					
190	#35	0/60			SW-SP		
200	#36	0/60					SAND; coarse, with gravel and scattered shell fragments.
210	#37	0/60					
220	#38	0/60					SAND; medium to coarse, with scattered gravel and shell fragments.
230	#39	58/60			CH		SILTY CLAY; dark gray, moist, hard, high plasticity, trace of sand.
240	#40	49/60			CL		SILTY CLAY; dark gray, moist, hard, medium plasticity.
250	#41	0/60			SP		SAND; medium to coarse, scattered gravel.
260	#42	60/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5" Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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BORING NO. GB#8

FIELD GEOLOGIST C. Wallace
ENTED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N336,899.7 E1,548,645.9
DATE BEGAN 7/13/88
DATE FINISHED 7/15/88
GROUND SURFACE EL. 16.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY	WELL SUMMARY	MEASURED CONSISTENCY	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	60/60			CH		SILTY CLAY; dark gray, moist, hard, medium to high plasticity.
215	#43	48/60			ML		CLAYEY SILT; dark gray, very moist, very stiff to hard, low plasticity, trace sand.
220	#44	23/60					
225	#45	48/60					CLAYEY SILT; dark gray, moist, very stiff, low plasticity, some sand.
230	#46	50/60			CL		SILTY CLAY; dark gray, moist, very stiff, medium plastic.
235	#47	38/60					SILTY CLAY; dark gray, moist, hard, low plasticity.
240	#48	0/60			SP		SAND; medium to coarse with gravel.
245	#49	0/60					
250	#50	60/60			CL		SILTY SANDY CLAY; dark to medium gray, moist, stiff, low to medium plasticity.
255							TOTAL DEPTH 253 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB8.DWG

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BORING NO. GB#9

FIELD GEOLOGIST D. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 336,157.4 E 1,548,016.0
DATE BEGAN 7/7/88
DATE FINISHED 7/12/88
GROUND SURFACE EL. 19.6 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0					CL		SANDY LOAM; light brown, dry, soft.
5							SILTY CLAY; dark gray, moist, stiff, minor sand.
10	#1	0/60			GC		SANDY CLAYEY GRAVEL; light to medium gray, wet, coarse angular pebbles and loose sand.
15	#2	15/60		1.0	CL		SANDY CLAY; light to medium gray, moist to wet, soft, moderately plastic, grading to silty clay.
20	#3	0/60					
25	#4	0/60					SANDY CLAY; light to medium gray, wet, soft, interbedded with coarse sand.
30	#5	14/60		1.5			SILTY CLAY; medium to dark gray, moist, soft, moderate plasticity.
35	#6	23/60		0.5–3.0			SANDY CLAY; light to medium gray, moist, soft, slightly plastic. SILTY CLAY; brown gray, moist, soft, slightly plastic.
40	#7	0/60					
45	#8	8/60		0.5–1.5			
50	#9	27/60		0.5			SANDY CLAY; medium brown, wet, soft, increasing sand.
55	#10	31/60					
60	#11	17/60		0.5–1.5			CLAY/SILTY CLAY; gray brown, moist, stiff, slightly plastic.
65	#12	6/60		2.0			SANDY CLAY; medium brown, moist, stiff, moderately plastic.
70	#13	20/60					CLAY; medium brown, moist, stiff, moderately plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB9.DWG

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BORING NO. GB#9

FIELD GEOLOGIST D. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 336,157.4 E 1,548,016.0
DATE BEGAN 7/7/88
DATE FINISHED 7/12/88
GROUND SURFACE EL. 19.6 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	20/60		3.5–2.5	CL		SANDY CLAY; gray brown, moist, stiff, slightly plastic.
75	#14	21/60		2.5			SILTY CLAY; light to medium gray, moist, medium to slightly plastic, increasing sand.
80	#15	13/60		3.0–1.5			SANDY CLAY; light to medium gray, moist, stiff, moderately plastic, minor gravels assoc.
85	#16	27/60		3.5–4.0			SILTY CLAY; brown gray, moist to slightly dry, stiff, slightly to non–plastic, becoming sandy, increasing moisture content.
90	#17	24/60		3.0–1.5	ML		SANDY CLAYEY SILT; brown gray, moist, stiff, modrately to slightly plastic.
95	#18	3/60		0.5	CL		SANDY CLAY; medium brown, moist, stiff, slightly plastic.
100	#19	16/20		1.5			SILTY CLAY; medium browm gray, moist, stiff, slightly plastic.
105	#20	22/60		1.0–1.5			
110	#21	48/60		3.5–1.0			SILTY CLAY; gray brown, moderately hard, dry to moist, non–plastic.
115	#22	53/60		3.5			
120	#23	24/60		2.5	CH		SANDY CLAY; gray with brown mottles, wet, stiff, highly plastic, rounded pebbles and coarse sand.
125	#24	0/60			SP		SAND; coarse.
130	#25	60/60		2.0–3.0	CL		SILTY CLAY; medium gray, moist to wet, stiff, moderately plastic.
135	#26	60/60		2.5–3.0			
140	#27	60/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB9.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#9

FIELD GEOLOGIST D. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 336,157.4 E 1,548,016.0
DATE BEGAN 7/7/88
DATE FINISHED 7/12/88
GROUND SURFACE EL. 19.6 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#27	60/60		2.0	CL		SILTY CLAY; medium gray, moist to wet, very stiff, non to moderately plastic.
145	#28	ND		2.0–4.0			
150	#29	60/60		2.5			
155	#30	60/60		2.0			
160	#31	60/60		2.0–4.5			
165	#32	40/60		3.0–2.5			
170	#33	60/60		3.0–2.5			
175	#34	48/60		3.0	CH		SILTY CLAY; dark gray, moist to wet, very stiff, highly plastic.
180	#35	48/60		4.5–3.5	CL		SILTY CLAY; pebbly, olive gray, moist to wet, very stiff, low plasticity, angular 1" diameter pebbles.
185	#36	0/60			SC		SAND; coarse grained. Description made from shaker sample. Sand is probably the derivative of a clayey sand.
190	#37	0/60					
195	#38	8/60		1.0	CL		GRAVELLY SILTY CLAY; dark gray, wet, stiff, slightly to moderately plastic.
200	#39	6/60		1.0	ML		SANDY CLAYEY SILT; medium brown, wet, stiff, slightly plastic, with clasts up to 1" diameter (minor).
205	#40	18/60		1.5–4.5	CL		SILTY CLAY; dark gray, moist, very stiff, slightly to moderately plastic, with minor coarse grained sand and pebbles.
210	#41	60/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB9.DWG

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BORING NO. GB#9

FIELD GEOLOGIST D. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 336,157.4 E 1,548,016.0
DATE BEGAN 7/7/88
DATE FINISHED 7/12/88
GROUND SURFACE EL. 19.6 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (SF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#41	60/60		3.5	CL		SILTY CLAY; gray with brown mottles, moist, very stiff, moderately plastic.
215	#42	60/60		3.5			
220	#43	30/60		3.0-	ML		CLAYEY SILT; medium gray, wet, slightly plastic, sandy.
225	#44	8/60		0.5	SM		SILTY SAND; medium gray, wet (saturated), loose, some pebbles.
230	#45	0/60			ML		SANDY SILT; medium gray, wet (saturated), loose.
235	#46	3/60					
240	#47	0/60			GM		SANDY GRAVEL.
245	#48	18/60			CL		SILTY CLAY; dark gray, moist to wet, stiff, moderately to slightly plastic, with angular pebbles to 1" diameter.
250	#49	30/60					SILTY CLAY; dark gray, moist to wet, stiff, low to moderate plasticity, trace sand.
255							TOTAL DEPTH 253 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB9.DWG

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BORING NO. GB#10

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 335,503.7 E 1,548,645.3
DATE BEGAN 7/27/88
DATE FINISHED 7/28/88
GROUND SURFACE EL. 20.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (SF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							Top soil and subgrade; logged from auger cuttings.
5	#1	0/60			GM		SANDY GRAVEL; black to tan, loose, angular to subrounded silty, clayey. Logged from hand sieves.
10	#2	14/60			CH		SANDY SILTY CLAY; grading to sandy clay, mottled gray and dark and light gray gray, very soft to soft, high plasticity, sand is fine to very fine, trace of gravel.
15	#3	0/60			SW		GRAVELLY SANDS; black to tan to white, loose, sand is medium to fine grained, subangular to subrounded. Gravel is angular to subangular, relatively clean. Logged from shaker and hand sieve.
20	#4	0/60			SC		CLAYEY GRAVELLY SANDS; black to tan to white, some fines, sand is coarse to fine grained, angular to subrounded, gravel is angular to subangular. Logged from shaker and hand sieve.
25	#5	16/60			CH		SANDY SILTY CLAY; dark gray, moist, very soft to stiff, high plasticity, moist, sand is fine to very fine grained.
30	#6	14/60					SILTY CLAY; dark and light gray with brown, moist, soft, high to moderate plasticity, trace of fine sands.
35	#7	12/60					SANDY SILTY CLAY; dark gray with light gray spots, slightly moist, stiff, medium to high plasticity, sand is fine to very fine, trace of green/gray organic fibers.
40	#8	0/60			SW		SAND; some clay, trace of gravel, sand is rounded to subangular, black to tan, coarse to medium grained.
45	#9	0/60			GC		CLAYEY SANDY GRAVEL; gray to light brown, sand and gravel angular to subrounded, sand is coarse to fine grained, many cemented particles. Logged from hand sieves.
50	#10	0/60			GM		SANDY GRAVEL; with some fines, brown to light brown/tan sand is coarse to fine grained, subangular to subrounded, gravel is angular to subangular, few particle cementations.
55	#11	0/60					Logged from hand sieve and shaker.
60	#12	0/60			SW		GRAVELLY SAND; with some fines, black to light brown, sand is coarse to fine, subangular to rounded, gravel is black to gray, angular to subrounded.
65	#13	0/60					Logged from hand sieve.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB10.DWG

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BORING NO. GB#10

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 335,503.7 E 1,548,645.3
DATE BEGAN 7/27/88
DATE FINISHED 7/28/88
GROUND SURFACE EL. 20.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70					SW		GRAVELLY SAND.
	#14	10/60			CH		SANDY CLAY; grading to sandy gravelly clay, brown with tan spots, moist, soft, high plasticity, sand is fine, black, gravel is angular, black, 1/4" in size.
75	#15	60/60			ML		CLAYEY SILT; grading to sandy clayey silt, brown with gray spots, slightly moist, soft to stiff, moderate to low plasticity, sand is fine to very fine.
80	#16	32/60					Moisture and plasticity increase with depth.
85	#17	0/60			SM		SILTY GRAVELLY SAND; black to brown, sand and gravel is subangular, sand is coarse to medium, frequent particle cementation. Logged from hand sieve.
90	#18	20/60			CH		SILTY SANDY CLAY; mottled gray and brown, moist, very soft to soft, high plasticity, sand is fine grained.
95	#19	0/60			SM		SILTY GRAVELLY SAND; black to light brown, sand is coarse to fine grained, angular to rounded, gravel is angular to subangular, dirty. Logged from hand sieve and shaker.
100	#20	30/60			CH		SILTY CLAY; mottled gray and red brown, slighty moist, soft, high plasticity, trace of sand and gravel.
105	#21	60/60			ML-SM		CLAYEY SILT; grading to silty sand, dark gray with brown, patches, slightly moist to dry, soft to stiff,, low to no plasticity, sand is fine to very fine.
110	#22	18/60			SM		SILTY SAND; grading to almost pure clay, sand is black-gray, fine to very fine grained, moist, low plasticity.
					CH		CLAY; gray, very stiff, dry, high to very high plasticity.
115	#23	12/60			SW		GRAVELLY SAND; black to gray, coarse to fine grained, angular to subangular.
120	#24	52/60			ML		CLAYEY SILT; gray with brown patches, slightly moist to dry, stiff, medium plasticity, trace of fine to very fine sands.
125	#25	28/60			CH		SILTY CLAY; dark gray, soft to dry, stiff, high plasticity, trace of fine sand.
130	#26	60/60			CL		SILTY CLAY; dark gray, slightly moist, soft to stiff, medium plasticity.
135	#27	55/60			CH		SILTY CLAY; grading to sandy silty clay, mottled dark gray and brown, slightly moist, stiff, medium to high plasticity, sand is medium to fine grained, black.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB10.DWG

IT ...Creating a Safer Tomorrow

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BORING NO. GB#10

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet
COORDINATES N 335,503.7 E 1,548,645.3
DATE BEGAN 7/27/88
DATE FINISHED 7/28/88
GROUND SURFACE EL. 20.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY TSF	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	60/60			ML-CL		SILTY CLAY; light and dark gray with brown spots, slightly moist, soft to stiff, medium to high plasticity.
145	#29	36/60					CLAYEY SILT; grading to sandy clay, clayey silt is light and dark gray with brown spots, slightly moist to dry, stiff, low plasticity. Sandy clay is dark gray, stiff, medium plasticity, sand is fine to very fine.
150	#30	60/60			CL-CH		SANDY CLAY; grading to clay-silty clay, sandy clay is dark gray, moist, soft to stiff, medium plastic. Sand is fine to very fine grained. Silty clay is mottled dark gray and dark brown, stiff, slightly moist, high plasticity.
155	#31	60/60			ML-CH		CLAYEY SILT; grading to sandy clay, clayey silt is mottled light and dark gray and dark brown, slightly moist to dry, stiff to very stiff, low plasticity. Sandy clay is light brown, soft to stiff, moist, high plasticity, sand is medium to very fine grained.
160	#32	0/60			SM-SC		CLAYEY SILTY SAND; dirty, some gravel, black to gray, coarse to fine, subangular to rounded, some gravel.
165	#33	0/60			SW		SAND; black to gray to tan, coarse to fine grained, sub-angular to rounded, predominantly clean, trace of gravels.
170	#34	34/60			CH		CLAY/SILTY CLAY; dark, steel gray, slightly moist, stiff to very stiff, medium to high plasticity.
175	#35	0/60			SW		SANDS; black to gray, coarse to fine grained, somewhat clayey, subangular to subrounded, obvious shell fragments, (>10%)
180	#36	0/60			SM		CLAYEY SILTY SAND; dirty, black to tan, coarse to fine grained, angular to subrounded, trace of gravel, some shell fragments. Logged from shaker and sieves.
185	#37	36/60			CL-CH		GRAVELLY SANDY SILT/CLAY; grading to silty clay, dark gray, slightly moist, stiff to very stiff, medium to high plasticity, sand is fine grained, gravel is rounded, trace of shell fragments and organic fibers.
190	#38	0/60					SANDS; somewhat dirty, black to light brown, medium to fine grained, subangular to subrounded, some shell fragments, somewhat silty, clayey.
195	#39	0/60			SW-SM		
200	#40	0/60					SANDS; clean, black to light brown, coarse to fine grained, subrounded to rounded, trace of gravel and shell fragments.
205	#41	10/60			ML		CLAYEY SANDY SILT; medium brown, stiff, very moist, low to medium plasticity, sand is fine to very fine grained.
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB10.DWG

IT ...Creating a Safer Tomorrow

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BORING NO. GB#10

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 335,503.7 E 1,548,645.3
DATE BEGAN 7/27/88
DATE FINISHED 7/28/88
GROUND SURFACE EL 20.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	0/60			GP		SAND? GRAVEL; clean, black to tan, sand is coarse to medium grained, subrounded to rounded, gravel is angular to subrounded.
215	#43	0/60			SW		GRAVELLY SAND; mostly clean, black to light brown, sand is coarse to medium grained, subrounded to rounded, gravel is angular to subrounded, trace of shell fragments. Logged from shaker and sieves.
220	#44	0/60					
225	#45	0/60					
230	#46	0/60					
235	#47	60/60			CL		SANDY CLAY; light brown, moist, stiff, medium plasticity.
					ML		CLAYEY SILT; gray with brown spots, dry, stiff to very stiff low plasticity, blocky, trace of mica.
240	#48	60/60			CL		SANDY CLAY; light brown, moist, stiff, medium plasticity.
					ML		CLAYEY SILT; mottled dark gray and dark greenish brown, very stiff, slightly moist to dry, low plasticity, blocky stucture.
245	#49	50/60					
250							TOTAL DEPTH 250 FEET 4-1/2" diameter boring
255							
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 40966
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB10.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#11

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 255 feet

COORDINATES N 335,839.0 E 1,548,601.0
DATE BEGAN 7/21/88
DATE FINISHED 7/25/88
GROUND SURFACE EL. 18.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							First 5 ft. sandy gravelly silt, brownish gray, slightly moist, fill material, gravel is gray, from 1" to 1/4".
5	#1	0/60			SW		4 to 4.5 ft. casing stopped; gravel fill lens. GRAVELLY SAND; sand is coarse to medium grained, black to white, gravel is gray and black, clean sands and gravels.
10	#2	0/60					
15	#3	0/60			SM		SILTY GRAVELLY SAND; sand is fine to very fine grained, black and dark gray, trace of silt and gravel.
20	#4	0/60					SILTY SAND; sand is fine to very fine grained, black and dark gray.
25	#5	10/60					
30	#6	10/60			ML CH		CLAYEY SILT; mottled gray and lt. brown, moist, mod. plas. SILTY CLAY; tan and light gray, moist, soft to stiff, high plasticity.
35	#7	0/60			SW		SAND; very fine to coarse grained, well graded, dirty-trace of silts, black to dark gray and tan.
40	#8	0/60					GRAVELLY SILTY SAND; sand is somewhat dirty, well graded, coarse to very fine grained, black and gray, gravel is coarse angular, black and dark gray.
45	#9	5/60			ML		CLAYEY SILT; tan to brown, soft, moderate plasticity.
50	#10	0/60			SW		GRAVELLY SAND; clean, coarse to medium grained sand, angular, black and gray, gravel is angular, black to light gray.
55	#11	0/60			SM		SILTY SAND; sand is medium to very fine grained, black to dark gray, with fines.
60	#12	18/60			CH		SILTY CLAY; tan with some light gray, very moist, soft to stiff, high plasticity, some fine sand cemented fragments interspersed.
65	#13	0/60			SW		GRAVELLY SANDS; sands coarse to fine grained, angular, and subangular, black to gray, gravel is interspersed but not prevalent, dark to light gray.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB11.DWG

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BORING NO. GB#11

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 255 feet

COORDINATES N 335,839.0 E 1,548,601.0
DATE BEGAN 7/21/88
DATE FINISHED 7/25/88
GROUND SURFACE EL. 18.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	18/60			ML		CLAYEY SILT; dark gray to light gray, moist, stiff, low plasticity.
75	#15	48/60					CLAYEY SILT; tan with some light gray and brown, dry to slightly moist, very stiff, low plasticity.
80	#16	0/60			SP		SAND; clean, black and brown to black, medium to very grained, subangular.
85	#17	0/60					
90	#18	0/60			SW		SAND; well graded, coarse to very fine grained, subrounded, to rounded, black to gray, some cementation of smaller grain sizes, predominantly clean, some shell fragments.
95	#19	0/60					
100	#20	0/60			SP		SAND; black to dark brown, poorly graded with trace of fines, sand is medium to fine grained, mostly clean.
105	#21	0/60					
110	#22	0/60					GRAVELLY SAND; black to dark brown, sand is coarse to fine grained, angular to subrounded, gravel is angular.
115	#23	0/60			SW		SAND; with some gravel, black to tan, sand is coarse to medium grained, angular to subangular to subrounded, clean.
120	#24	0/60			SP		GRAVELLY SAND; traces of fines, sand is coarse to fine grained, angular to subrounded, black to tan, gravel is black to gray, angular to subangular.
125	#25	0/60					Traces of shell fragments–sand sized.
130	#26	0/60			ML		CLAYEY SILT; dark solid gray, slightly moist, stiff, moderately plastic.
135	#27	60/60					CLAYEY SILT; mottled dark gray and brown, slightly moist, stiff to very stiff, moderate plasticity.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB11.DWG

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BORING NO. GB#11

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 255 feet

COORDINATES N 335,838.0 E 1,548,801.0
DATE BEGAN 7/21/88
DATE FINISHED 7/25/88
GROUND SURFACE EL. 18.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	55/60			ML		CLAYEY SILT; mottled dark gray brown and tan, slightly moist, stiff, low plasticity.
145	#29	60/60					CLAYEY SANDY SILT; solid dark gray, mottled brown in some zones, moist, stiff to very stiff, low to moderate plasticity, <5% sand.
150	#30	60/60			CL		SILTY CLAY; dark gray throughout, dry to slightly moist, stiff, moderately plastic.
155	#31	54/60			ML		CLAYEY SILT; grading to sandy clayey silt, mottled dark and light gray and dark brown, grading to light and dark gray, moist, very stiff, low to moderate plasticity.
160	#32	20/60					
165	#33	55/60					CLAYEY SANDY SILT, grading to clayey silt, mottled light and dark gray, slightly moist, moderate plasticity, some sand nodules (Mn/Fe?), blocky structure. Thin gravel/sand layer at 165'.
170	#34	46/60					SANDY SILT; grading to gravelly sandy silt, dark gray, moist, low plasticity, stiff to very stiff, sand is medium to fine grained, black, prevalent shell fragments in last 2'.
175	#35	4/60			GM		SANDY SILTY GRAVEL; gravel from 3" to 1/4", sand is coarse to medium, some cementation, sand is black and gray, gravel is black, gray to tan.
180	#36	0/60			SW		GRAVELLY SANDS; black and tan, dirty, sand is medium grained, angular to subangular, gravel is subangular to subrounded, prevalent shell fragments.
185	#37	24/60			CH		SANDY CLAY; grading to gravelly sandy clay, wet, soft, high plasticity, sand is medium to fine grained black, gravel is gray, subrounded.
190	#38	0/60			SM		SILTY SAND; to silty sandy gravel, black to light gray, sand is coarse to fine grained, dirty, subangular to rounded, gravel is black to tan, some shell fragments.
195	#39	54/60			CH		SILTY CLAY; grading to sandy silty clay, mottled dark gray and dark brown, moist to very moist, high plasticity, sand from 10 to 1mm in diameter, subrounded brown to light gray.
200	#40	60/60			CL		SILTY CLAY; mottled dark gray and brown, medium plasticity, moist, blocky structure, grades to a clayey silt, mottled light and dark gray, stiff, low plasticity.
205	#41	60/60			ML		CLAYEY SILT; mottled brownish gray, cream gray, dark gray, slightly moist to dry, thin gravelly layer (~212 ft. - 2" thick).
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB11.DWG

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FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#11

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 255 feet

COORDINATES N 335,839.0 E 1,549,601.0
DATE BEGAN 7/21/88
DATE FINISHED 7/25/88
GROUND SURFACE EL. 18.8 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	42/60			CH		SILTY CLAY; grading to sandy silty clay with depth, streaked light brown in dark gray to plain dark gray with depth, very moist, soft to stiff, medium to high plasticity, sand is black, fine to very fine, not more than 10% sand in last 2 ft..
215	#43	50/60			CH–ML		SANDY SILTY CLAY; (1 ft. thick) grading to clayey silt, sandy silty clay is dark gray, very moist, high plasticity, sand is fine to very fine grained, clayey silt is mottled light gray and dark brown, slightly moist, low plasticity, trace of sand.
220	#44	48/60			ML		CLAYEY SILT; mottled dark and light gray and dark brown, dry to slightly moist, trace of black sand nodules (2mm) <1% sand
225	#45	40/60					CLAYEY SILT; with interbedded gravelly sandy silt layers to 3" thick, moist to very moist, stiff to very stiff, low plasticity gravel is subrounded, black and brown, sand is medium to fine grained, black to tan, clayey silt is mottled gray and light brown, some particle cementation present.
230	#46	4/60			SM–ML		GRAVELLY SILTY SAND; with sandy silt lens, sandy silt is dark gray, very moist, soft, gravelly sand is dirty, black to tan, sand is coarse to medium grained.
235	#47	36/40			ML		SANDY SILT; grading to clayey silt, mottled dark gray and brown grading to dark, deep gray, dry to moist, stiff, sand is fine to very fine grained, black.
240	#48	20/60			CL		SILTY CLAY; thinly bedded, dark gray, dry, stiff, medium plasticity.
245	#49	60/60					SILTY CLAY; dark gray to mottled dark and light gray, trace of sand, moist to slightly moist, medium plasticity.
250	#50	60/60					Same as above except with medium to high plasticity.
255							TOTAL DEPTH 255 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB11.DWG

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BORING NO. GB#12

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 335,819.1 E 1,548,307.5
DATE BEGAN 8/1/88
DATE FINISHED 8/3/88
GROUND SURFACE EL. 20.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY TSF	USCS SYMBOL	PROFILE	DESCRIPTION
0	#1	0/60			GM		FILL; gravel and fill material, 1.0–1.5 ft. lens of quartz, feldspar, rock material.
5	#2	0/60					SILTY SANDY GRAVEL; poorly sorted gravel, gray rounded, sand is coarse to medium grained.
10	#3	0/60			SM		GRAVELLY SILTY SAND; black to gray, poorly sorted, coarse to medium grained, rounded to subrounded, quartz feldspar rock lens at 14–14.5 ft..
15	#4	0/60			GW		SANDY GRAVEL; clean, black to light gray, gravel is angular to subrounded, sand is coarse to fine grained.
20	#5	0/60			GC		SANDY CLAYEY GRAVEL; black to gray, soft, high plasticity, sand is coarse to fine grained, gravel is well sorted, rounded to subangular, some shell fragments.
25	#6	30/60		1.25	CH		SANDY SILTY CLAY; grading to silty clay, mottled gray and light brown to dark gray, slightly moist, soft, high to very high plasticity, sand is medium to fine grained.
30	#7	0/60			CL		GRAVELLY SAND CLAY; gray, very soft, medium to high plasticity, sand is coarse to fine grained, black and gray, gravel is well sorted, angular to subround.
35	#8	0/60			SW		SANDS; trace of gravel and fines, all earthen colors, coarse to very fine grained, angular to subrounded, some cementation of particles.
40	#9	0/60			SC-GC		CLAYEY SANDS AND GRAVELS; black to tan, sand is coarse to medium grained, angular to subangular, gravel angular to subangular.
45	#10	22/60		1.0	CH		SANDY SILTY CLAY; light brown, slightly moist, soft to stiff, high plasticity, sand is fine to very fine grained.
50	#11	24/60		3.7	ML		CLAYEY SILT; light brown with dark and light gray spots, dry, stiff to very stiff, low plasticity, trace of rounded gravel.
55	#12	26/60		1.05	CH		SILTY CLAY; brown, slightly moist to moist, stiff, high to very high plasticity, trace of fine sand.
60	#13	18/60		0.30			SANDY SILTY CLAY; light brown, moist, very soft to soft, very high plasticity, sand is fine to very fine grained, trace of medium grained sand.
65	#14	10/60		2.3	ML		CLAYEY SILT; mottled light brown and light gray, moist, very stiff, low to medium plasticity, sticky.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB12.DWG

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BORING NO. GB#12

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet
COORDINATES N 335,819.1 E 1,548,307.5
DATE BEGAN 8/1/88
DATE FINISHED 8/3/88
GROUND SURFACE EL. 20.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#15	24/60		0.75–2.0	ML		CLAYEY SILT; with gravel, grading to silty clay, mottled gray and brown, dry, stiff, low to high plasticity, gravel is gray, angular to subangular.
75	#16	44/60		2.0–2.6			SANDY CLAYEY SILT; brown with light gray spots, dry, stiff to very stiff, dry, low to medium plasticity, sand is fine to very fine grained.
80	#17	0/60			SW		SANDS; black and brown, subrounded to rounded, coarse to fine grained, clean.
85	#18	10/60		0.50	SM-CH		SILTY SAND; grading to silty clay, sand is medium to fine grained, black, dirty, clay is dark gray with brown spots, dry, soft, high plasticity.
90	#19	0/60			SC		GRAVELLY CLAYEY SAND; light brown to black, sand is coarse to fine grained, angular to rounded, gravel is angular to subrounded.
95	#20	0/60					
100	#21	0/60					GRAVELLY CLAYEY SAND; brown medium plastic, sand is black to gray, subangular to rounded, coarse to fine grained, gravel is poorly sorted, angular to subangular.
105	#22	0/60					
110	#23	60/60		3.0	CL		SILTY CLAY; mottled light gray, dark gray and dark brown, moist, very stiff, medium to high plasticity.
115	#24	0/60			SC		CLAYEY SANDS; black to gray, coarse to fine grained, angular to subangular, trace of gravel.
120	#25	0/60					GRAVELLY SAND; with some fines, black to gray, coarse to fine grained sands, subangular to subrounded, gravel is angular to subrounded.
125	#26	54/60		1.5	ML		CLAYEY SILT; grading to clay, silt is light brown with gray spots, slightly moist to dry, stiff, low plasticity.
130	#27	54/60		3.0–3.75	CH		CLAY; grading to silty clay, dark gray with dark brown spots moist to slightly moist, very stiff, high to medium plasticity.
135	#28	60/60		2.25–3.70	ML		CLAYEY SILT; mottled dark gray and dark brown, slightly moist, very stiff, low to no plasticity.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409615
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB12.DWG

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BORING NO. GB#12

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet

COORDINATES N 335,819.1 E 1,548,307.5
DATE BEGAN 8/1/88
DATE FINISHED 8/3/88
GROUND SURFACE EL. 20.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#29	60/60		1.5-2.5	CL		SILTY CLAY; mottled dark gray and brown, moist, stiff to very stiff, medium plasticity, some cream colored patches also.
145	#30	48/60		1.5-2.0			SILTY CLAY; mottled dark gray and dark brown with some dark green gray, slightly moist, stiff, medium plastic.
150	#31	60/60		2.6-2.8	ML		CLAYEY SILT; dark and darker gray grading to mottled dark gray and dark brown, dry to slightly moist, very stiff, low plasticity, shear zones.
155	#32	47/60		4.5			
160	#33	0/60			SW		SANDS; black to tan, coarse to fine grained (predominantly fine), subrounded to rounded, trace of gravels and fines.
165	#34	24/60		2.6-2.8	CL		SILTY CLAY; mottled light and dark gray, slightly moist, stiff to very stiff, medium to high plasticity, trace of coarse, rounded sands and gravels.
170	#35	58/60		2.25-2.5	ML		CLAYEY SILT; dark (steel) gray, slightly moist, very stiff, low to medium plasticity, shear zones (slickensides).
175	#36	0/60			SM		GRAVELLY SILTY SAND; black to light brown, coarse to fine grained, angular to subrounded, gravel is rounded.
180	#37	0/60					GRAVELLY SILTY SAND; light gray to brown, coarse to fine grained (predominantly medium grained), angular to sub-angular, gravel is angular and poorly sorted (small sizes).
185	#38	44/60		1.0-1.5	CH-CL		First 8" SILTY CLAY; gray, moist, soft to stiff, high plasticity. 36" sandy clay, tan, very moist, stiff, high plasticity sand is fine to very fine, with trace of rounded, medium grained.
190	#39	10/60		2.25-2.5			GRAVELLY SILTY CLAY; whitish gray to gray, medium grained, dry, very stiff, medium plasticity, gravel is sparse but apparent; 5-15mm in size.
195	#40	60/60		1.5-1.8			SILTY CLAY; grading to sandy silt, gray to dark gray, moist, to very moist, stiff, clay has high plasticity, silt has low plasticity, sand is fine to very fine grained with trace of medium grained.
200	#41	30/60		3.6			CLAYEY SILT; dark gray, with whitish gray streaks, dry, very stiff, low plasticity.
205	#42	54/60		1.5	ML-CL		SILT/SILTY CLAY; dark brown with light gray and whitish gray streaks and patches, dry to slightly moist, hard, medium plasticity, some rounded coarse sand in isolated zones.
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#12

FIELD GEOLOGIST S. Logan
LOGGED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 253 feet
COORDINATES N 335,819.1 E 1,548,307.5
DATE BEGAN 8/1/88
DATE FINISHED 8/3/88
GROUND SURFACE EL. 20.1 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#43	60/60		3.6–4.3	ML		CLAYEY SILT; dark gray and brown grading to brown only, slightly moist, very stiff to hard, low to medium plasticity, trace of fine sands.
215	#44	0/60					SILTY SANDS; black to gray to white, coarse to fine grained, angular to subrounded, dirty, trace of fine gravel.
220	#45	0/60			SM		SILTY SANDS; gray to tan, coarse to fine grained, sub-rounded to rounded, dirty.
225	#46	0/60			SW		SANDS; black to tan, coarse to very fine grained, sub-rounded to rounded, trace of silts.
230	#47	0/60			SP		SANDS; black and brown to tan, medium to fine grained, subangular to subrounded, trace of fines and rounded coarse grained sand.
235	#48	•	Core barrel unable to be retrieved on this run. From 235 to 255 feet logged as one sample.	0.25–1.25	CH		Alternating layers of gravelly clays and clays, gray to dark gray, moist, soft to medium stiff, high to very high plasticity, gravel is coarse grained, rounded, black and gray trace of fine sand.
255							TOTAL DEPTH 253 FEET **4-1/2" diameter boring**
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB12.DWG

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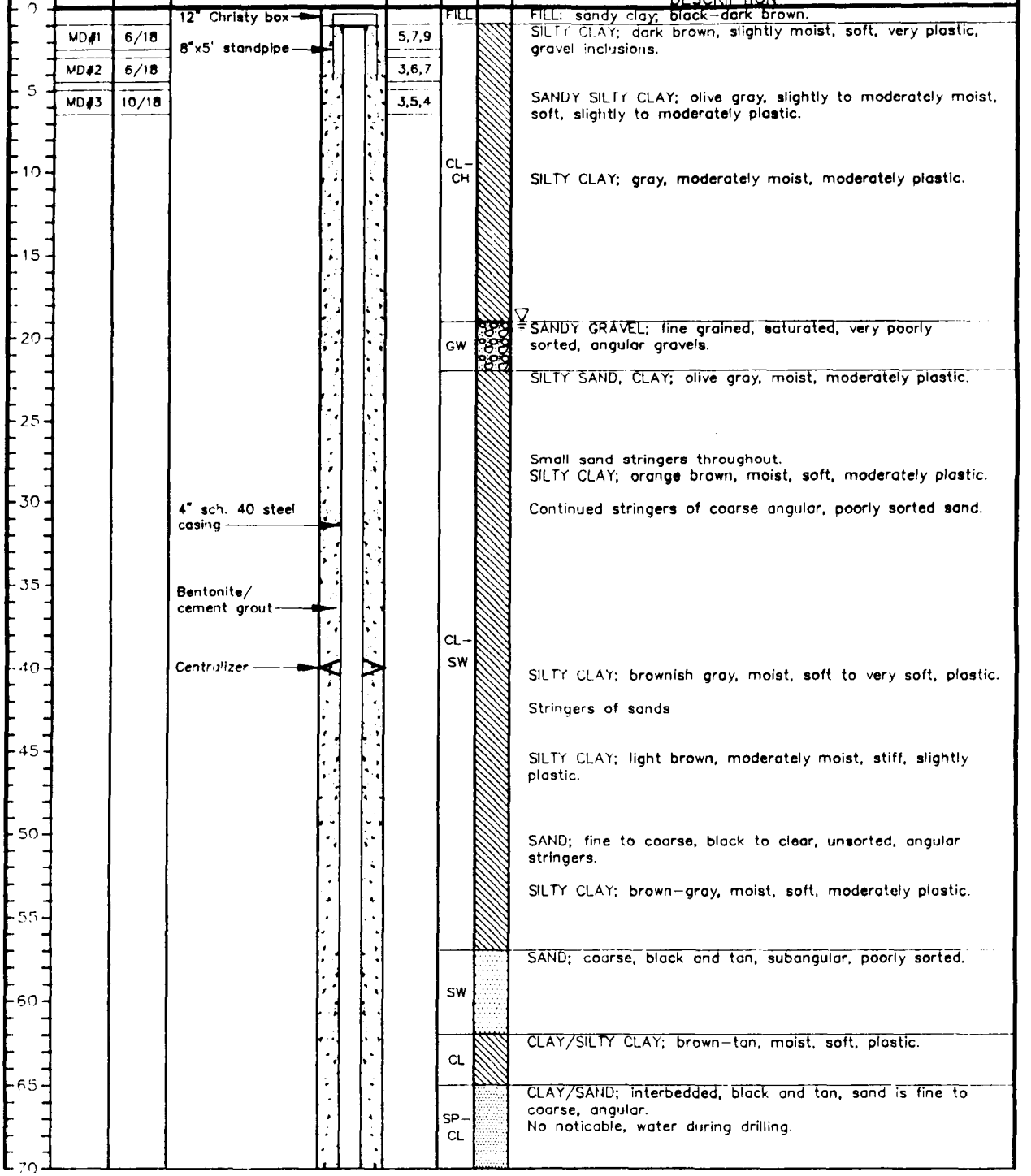
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-3(C)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hodsall
TOTAL DEPTH 174.7 feet
COORDINATES N 335,811.3 E 1,548,305.4
DATE BEGAN 8/15/88
DATE FINISHED 8/16/88
GROUND SURFACE EL. 20.1 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W9-3C.DWG

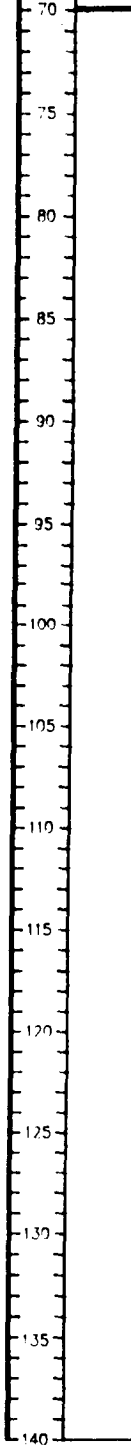
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-3(C)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hodgall
TOTAL DEPTH 174.7 feet

COORDINATES N 335,811.3 E 1,548,305.4
DATE BEGAN 8/15/88
DATE FINISHED 8/18/88
GROUND SURFACE EL. 20.1 ft.



SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER (6")	USCS SYMBOL	PROFILE	DESCRIPTION
				CH-CL		CLAY/SILTY CLAY; gray-brown, moist, stiff, very plastic.
				SP		Sand stringer
				CH-CL		CLAY/SILTY CLAY; gray brown, moist, soft, very plastic.
				SP		SAND; very fine to medium grained, subround, unconsolidated inclusions of fine gravel.
				CL-SP		SANDY SILTY CLAY; light brown, moist, very soft, moderately plastic, interbedded with fine sands.
				SW		SANDS; very fine to medium grained, black and clear, sub-round, poorly sorted. Making water, flowing. Sand is clayey silty, "flowing sands" (unconsolidated, saturated, very fine) Very loose flowing sands.
				CL-SW		SILTY CLAY/CLAY; gray, moist, stiff, moderatly to slightly plastic. A few sand stringers. SILTY CLAY; orangish brown, moist, soft, very plastic. CLAY/SILTY CLAY; gray brown, moderately moist, stiff, moderately to slightly plastic. CLAY/SILTY CLAY; gray and brown, moist, soft to stiff, moderately plastic, with 1-2' sand; very fine grained, poorly sorted, subrounded, "flowing sand" with roots and fibers (organics). Making water.
				CH-CL		CLAY/SILTY CLAY; gray, moist, stiff, very plastic. Grading into very firm- CLAY/SILTY CLAY; olive gray, moderately moist, very stiff, moderate plasticity.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W9-3C.DWG

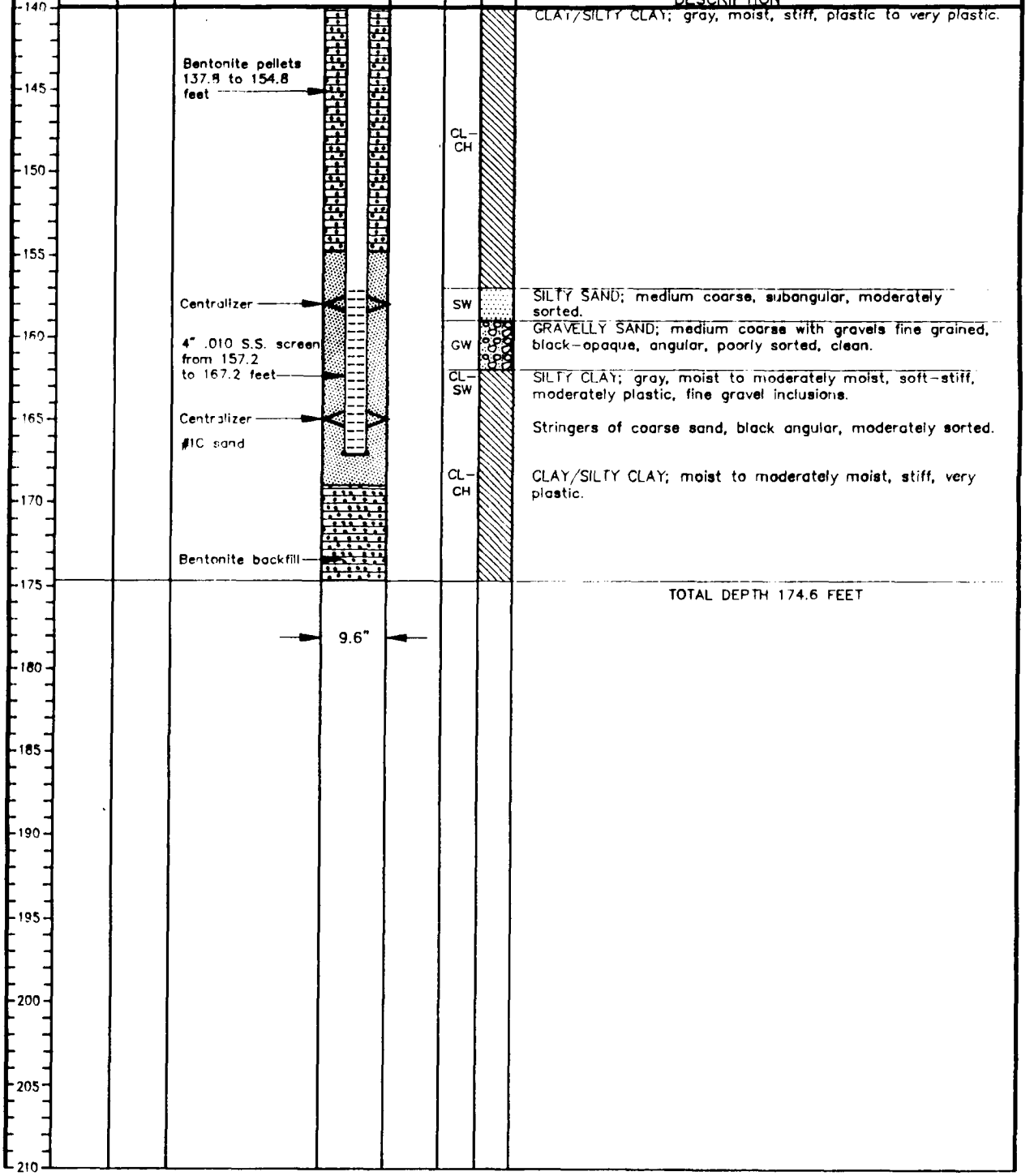
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-3(C)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 174.7 feet

COORDINATES N 335,811.3 E 1,548,305.4
DATE BEGAN 8/15/88
DATE FINISHED 8/18/88
GROUND SURFACE EL. 20.1 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W9-3C.DWG

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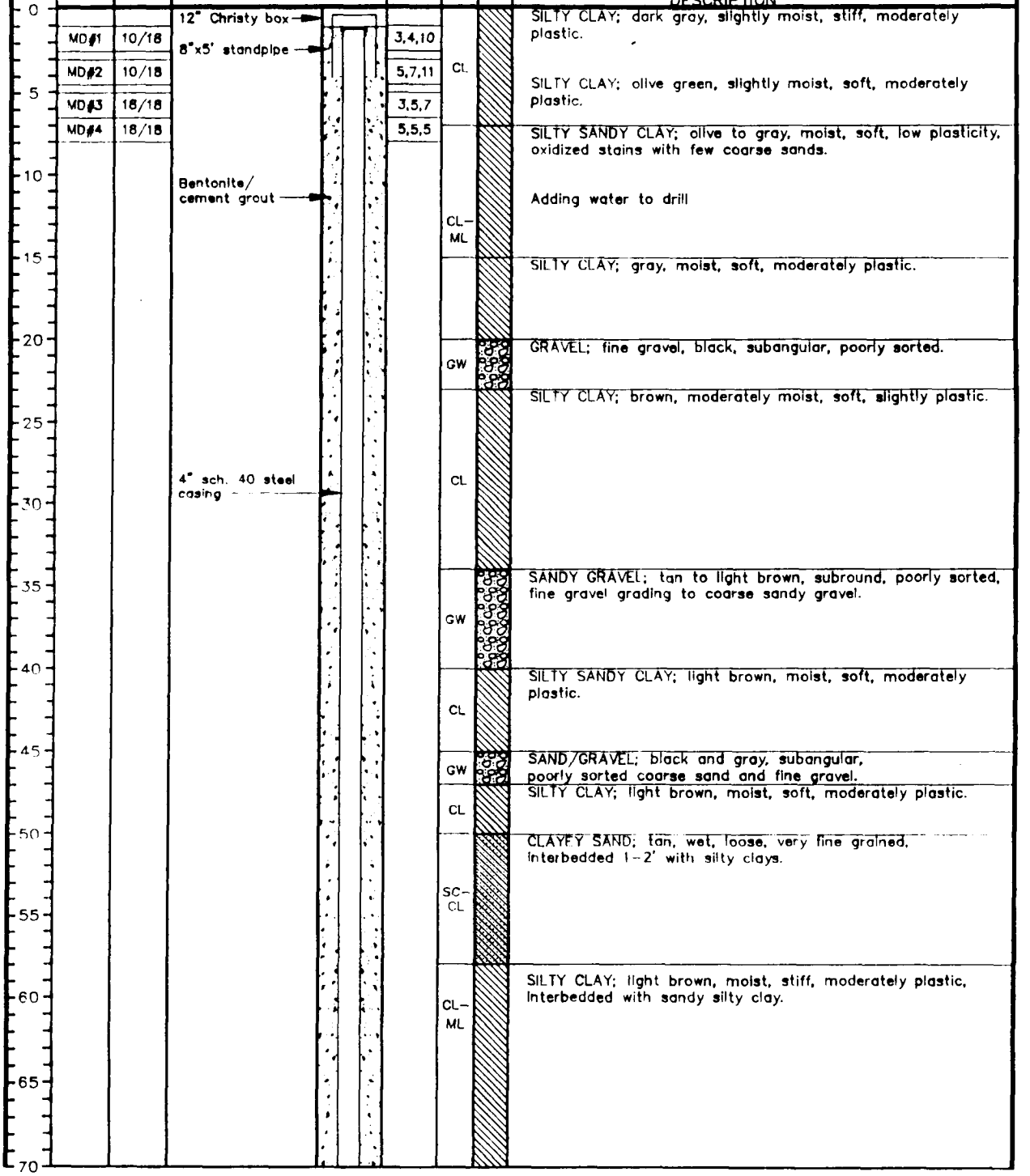
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-4(B2)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 94.3 feet

COORDINATES N 336,879.6 E 1,548,121.6
DATE BEGAN 7/21/88
DATE FINISHED 7/21/88
GROUND SURFACE EL. 14 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW9-482.DWG

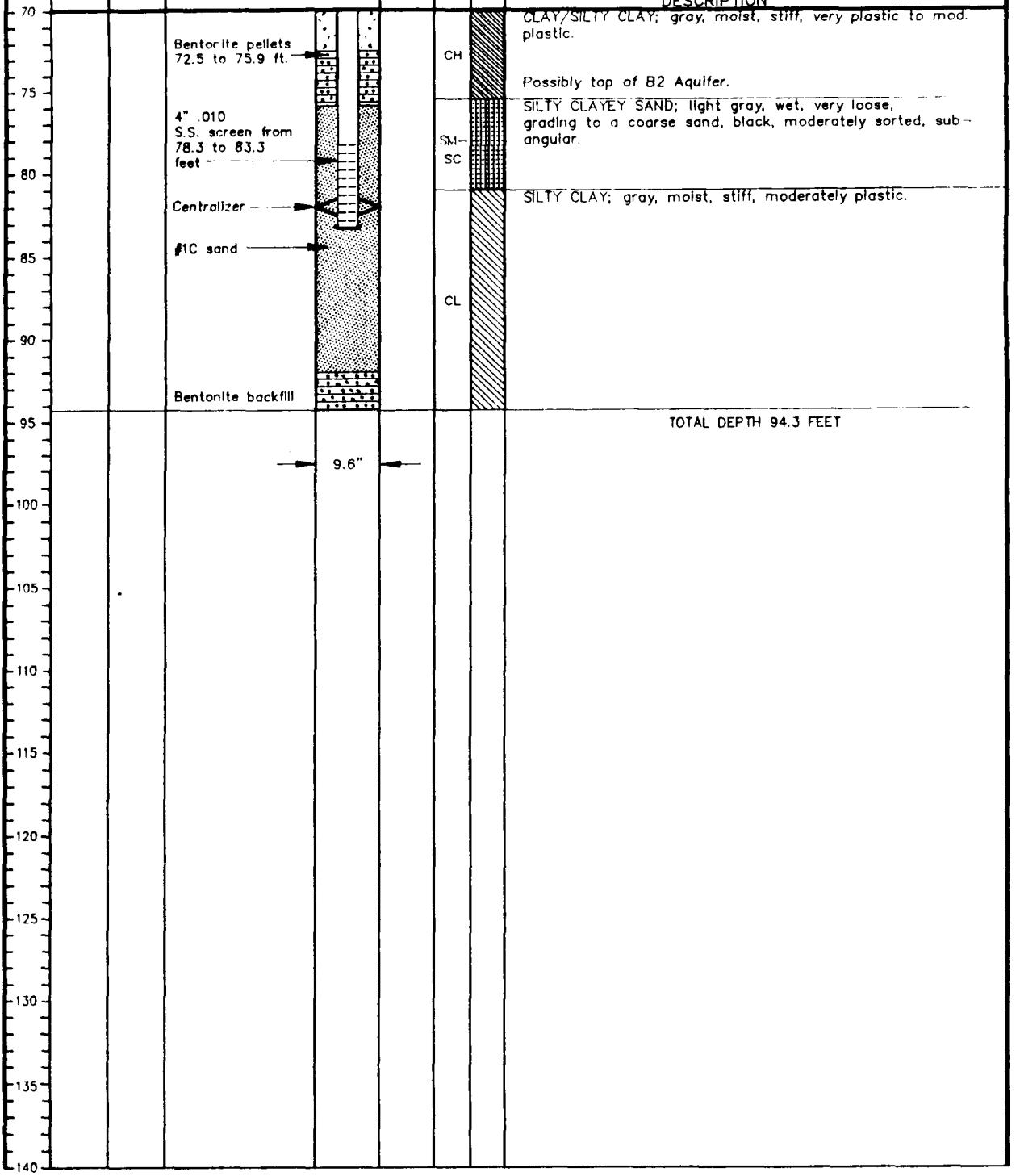
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-4(B2)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 94.3 feet

COORDINATES N 336,979.6 E 1,548,121.6
DATE BEGAN 7/21/88
DATE FINISHED 7/21/88
GROUND SURFACE EL. 14 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW9-4B2.DWG

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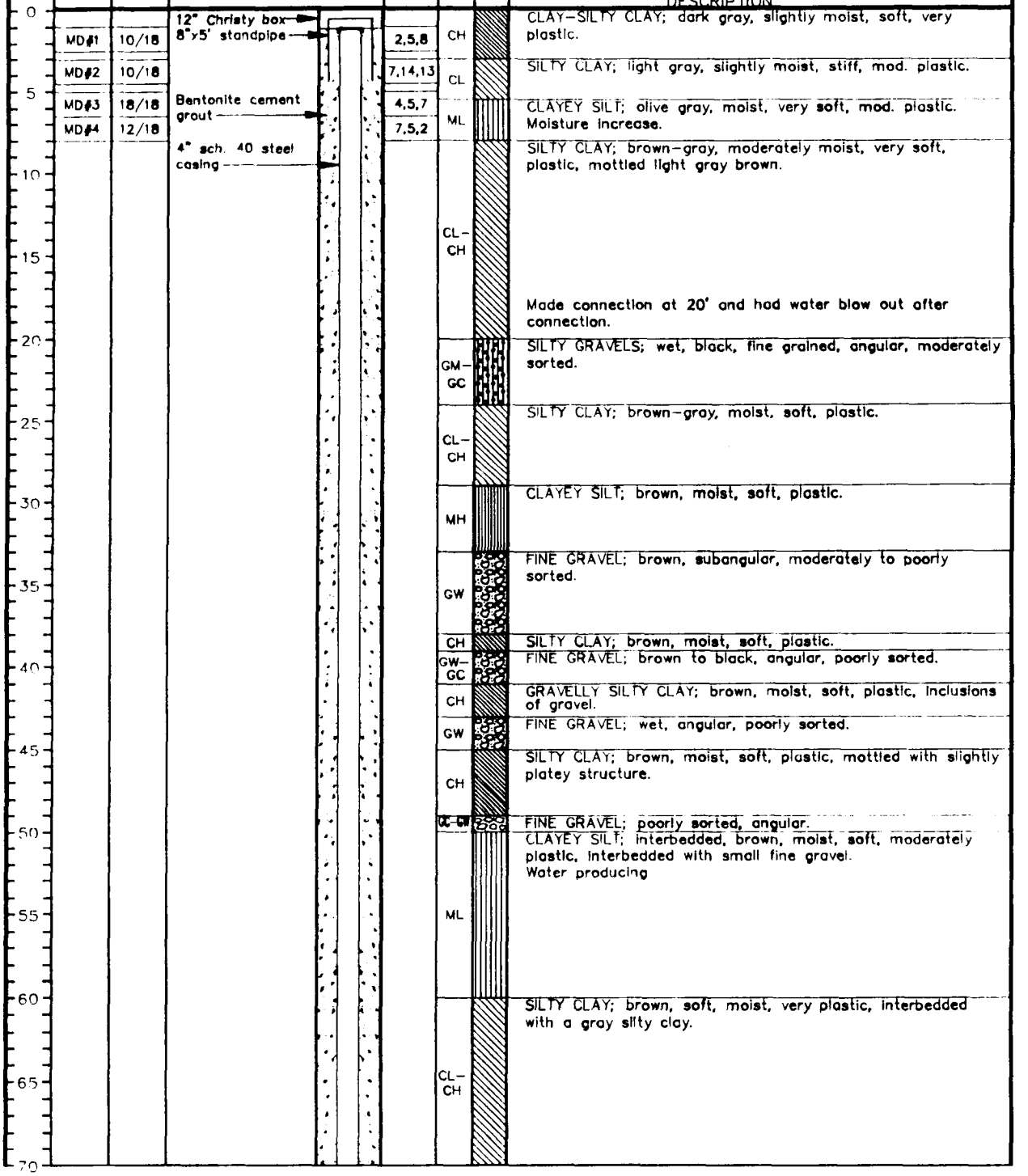
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-5B3

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 124.1 feet

COORDINATES N 336,993.2 E 1,548,115.8
DATE BEGAN 7/26/88
DATE FINISHED 7/26/88
GROUND SURFACE EL. 13.8 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW9-5B3.DWG

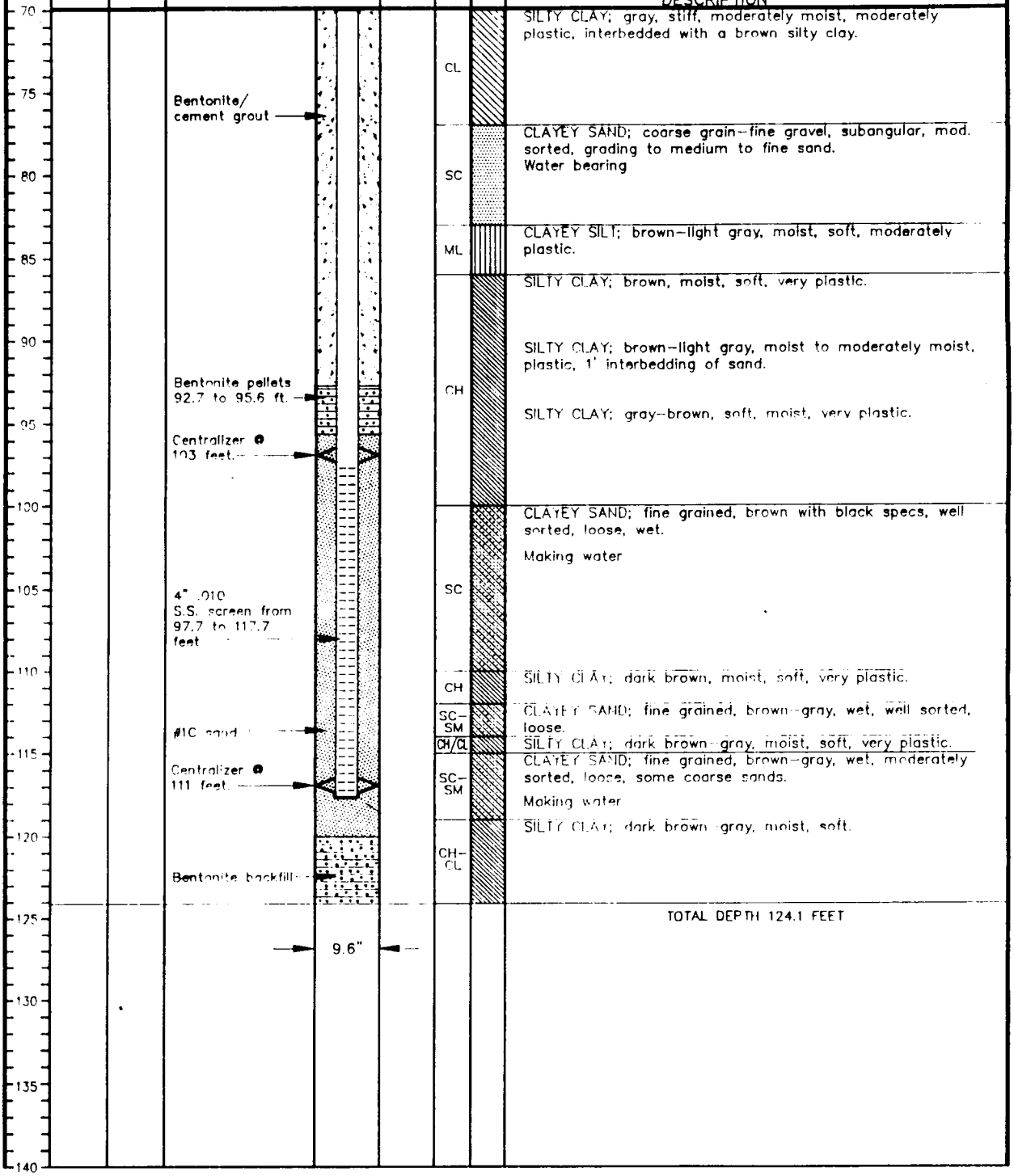
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9--5B3

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 124.1 feet

COORDINATES N 336,993.2 E 1,548,115.8
DATE BEGAN 7/26/88
DATE FINISHED 7/26/88
GROUND SURFACE EL. 13.8 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW9-5B3.DWG

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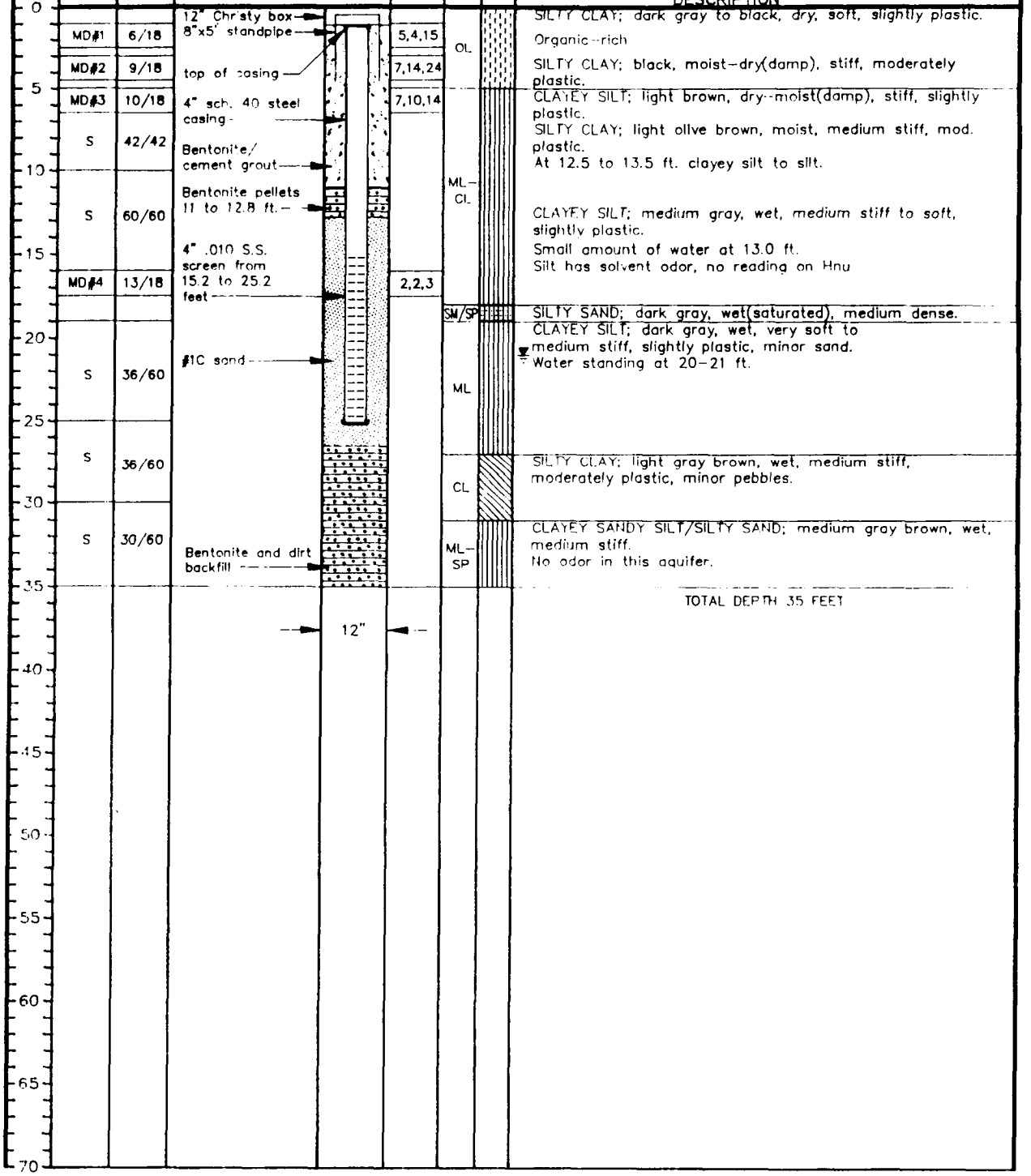
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-6(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 35 feet
COORDINATES N 336,389.7 E 1,548,272.7
DATE BEGAN 7/18/88
DATE FINISHED 7/18/88
GROUND SURFACE EL. 18.5 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

CAD FILE: MF-W9-6A.DWG

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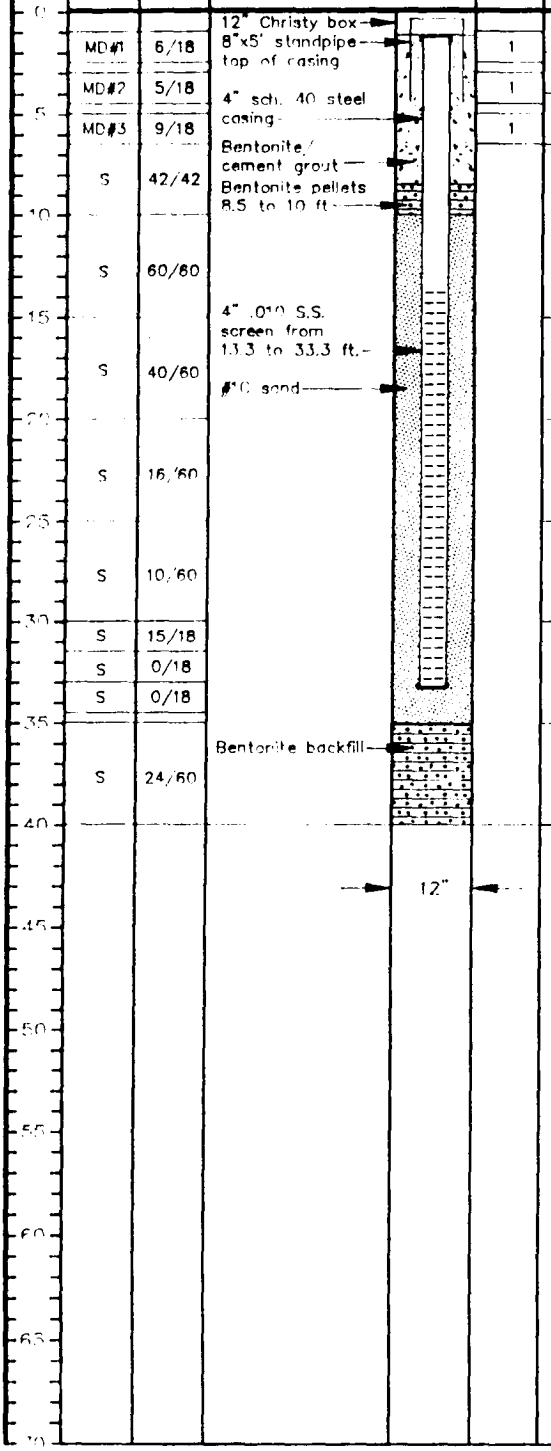
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-7(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 40 feet

COORDINATES N 336,168.7 E 1,548,103.2
DATE BEGAN 7/21/88
DATE FINISHED 7/21/88
GROUND SURFACE EL. 19.66 ft.



DESCRIPTION

FILL: sandy gravel; moderate brown, dry, medium dense.

SILTY CLAY; black, moist, stiff, high plasticity.

CLAYEY SILT; light gray, moist, stiff, moderate plasticity, thin layer of pebbly sand (4 - 4.2 ft.)

SILTY CLAY; medium gray with medium brown spots, moist to wet, stiff, moderately plastic.

▽ Ground water first encountered.

CLAYEY SILT/SILT; dark gray, wet (saturated), very soft, low plasticity.

PEBBLY SAND; with clay and silt, dark greenish gray, wet, medium dense.

SANDY GRAVEL; with clay, gray, wet, low plasticity.

SILTY SAND; medium brownish gray, wet, dense, poorly graded.

SANDY CLAY; medium brown, wet, stiff, low plasticity.

TOTAL DEPTH 40 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-W9-7A.DWG

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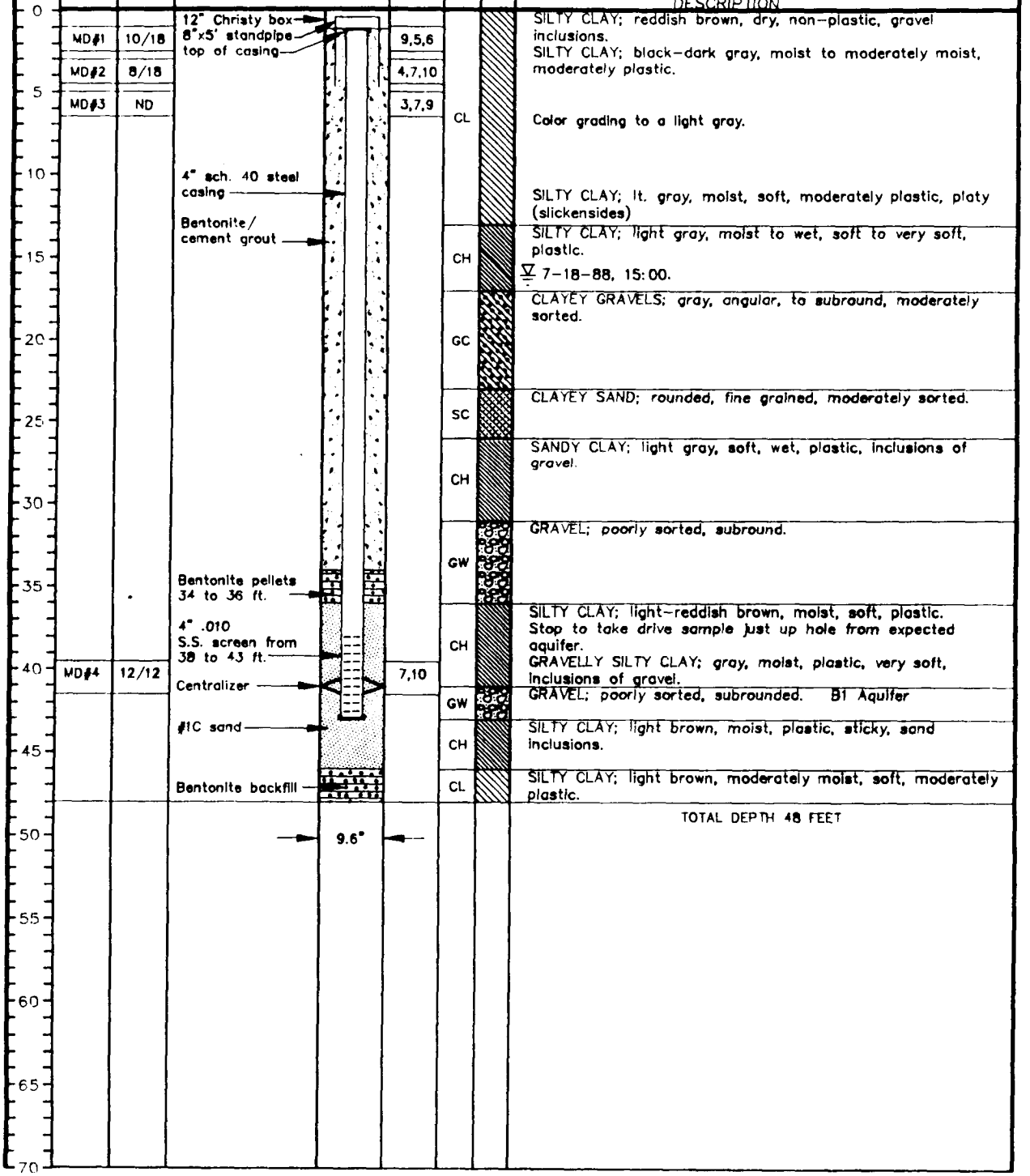
EE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-13(B1)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 48 feet

COORDINATES N 336,152.5 E 1,548,014.9
DATE BEGAN 7/18/88
DATE FINISHED 7/19/88
GROUND SURFACE EL. 19.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

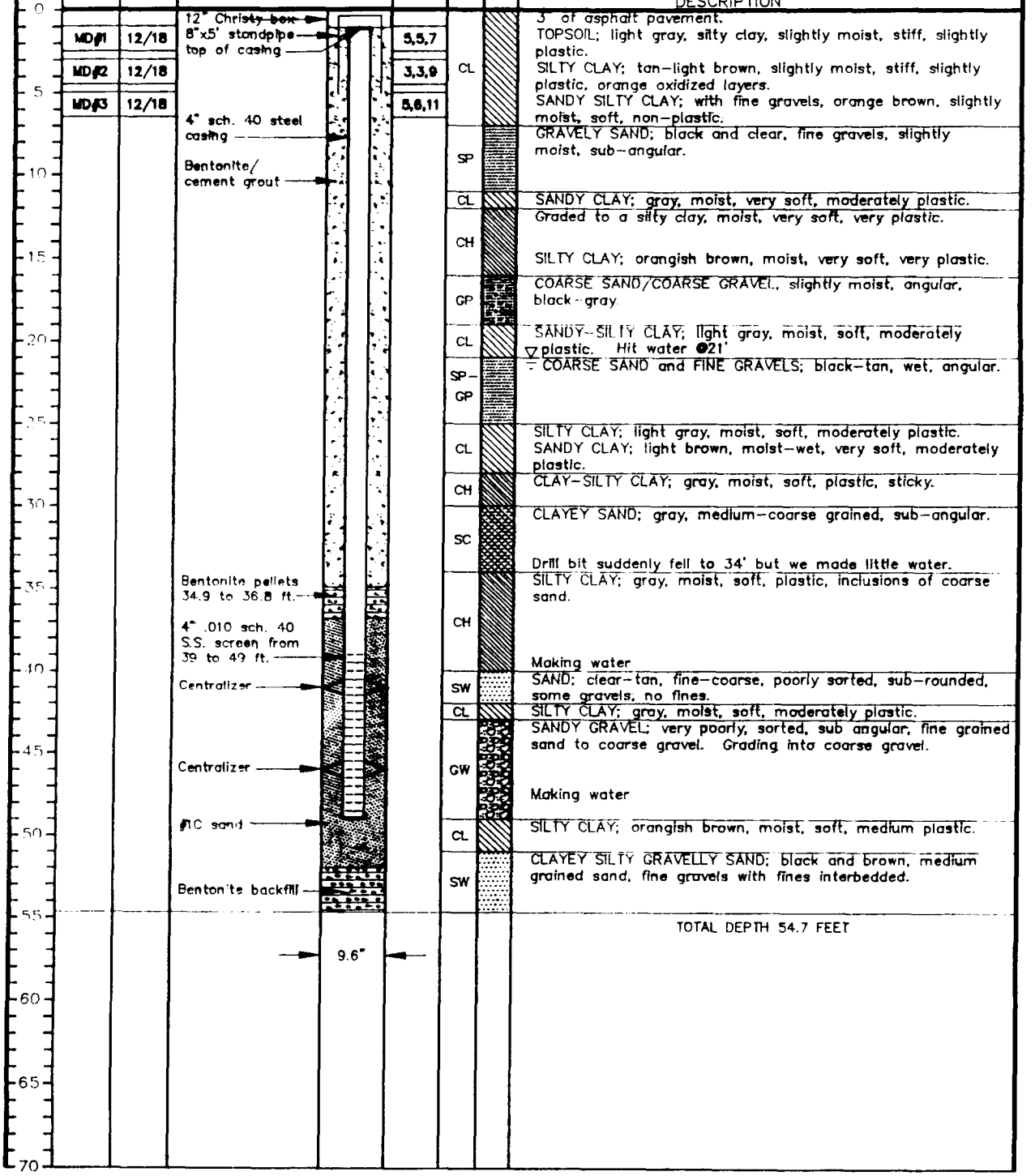
AutoCAD FILE: MW9-13B1.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-14(B1)

FIELD GEOLOGIST E. Wessner
ENTERED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 54.7 feet
COORDINATES N 335,498.3 E 1,548,647.7
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 20.9 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W9-14B1.DWG

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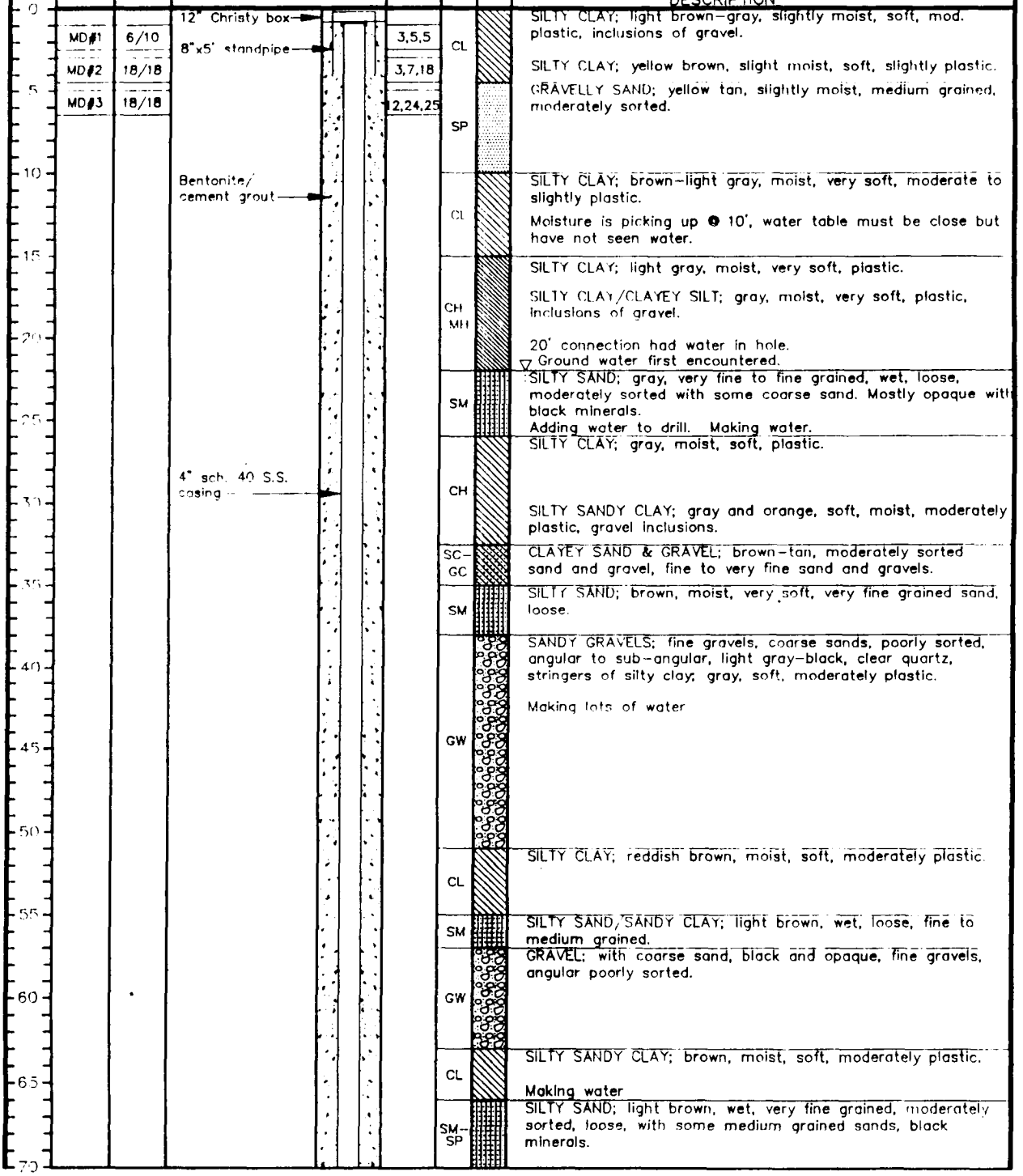
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-15(B2)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hodsall
TOTAL DEPTH 108 feet
COORDINATES N 335,826.0 E 1,548,605.0
DATE BEGAN 8/1/88
DATE FINISHED 8/4/88
GROUND SURFACE EL. 18.8 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MW9-15B2.DWG

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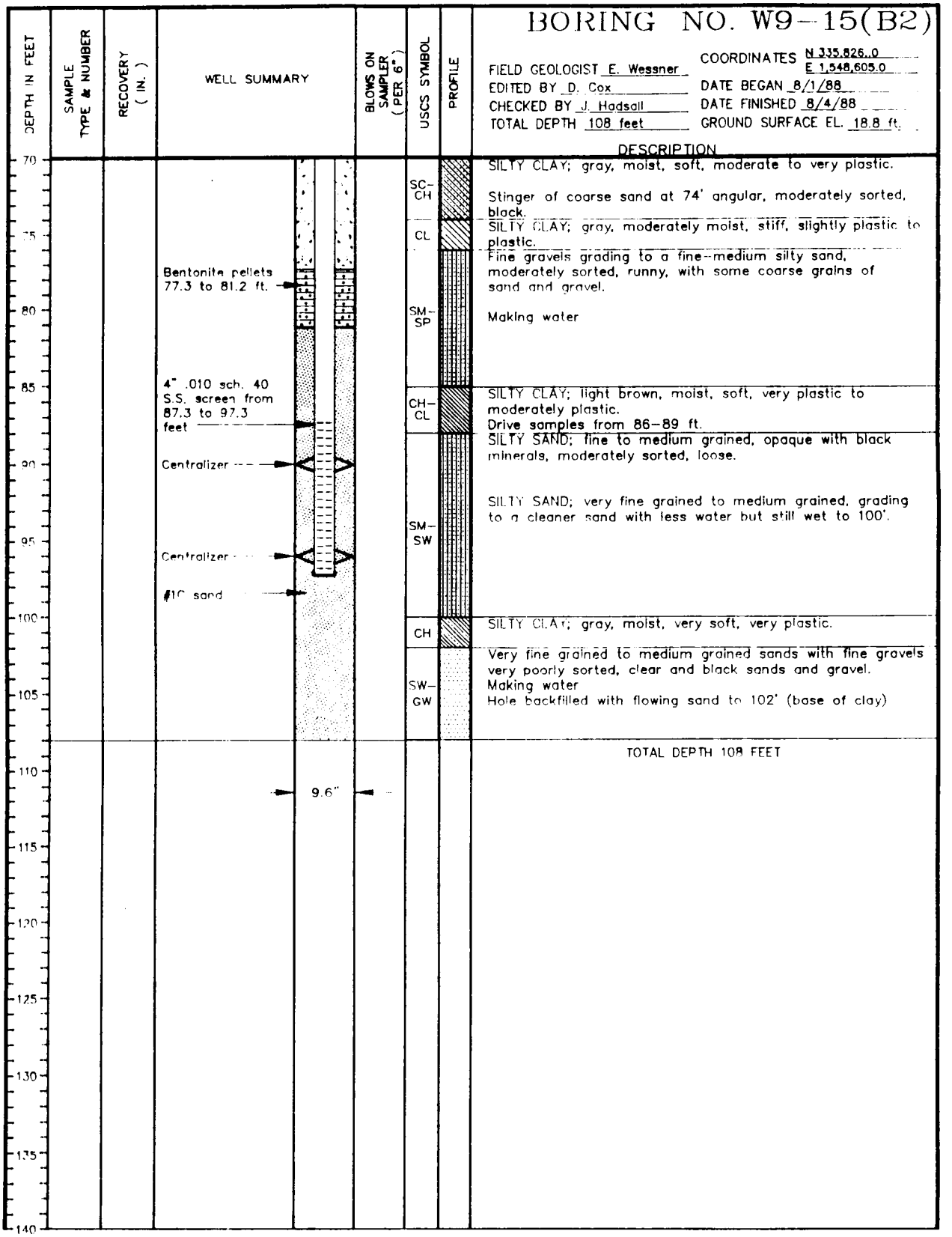
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-15(B2)

FIELD GEOLOGIST E. Wessner
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 108 feet

COORDINATES N 335,826.0 E 1,548,605.0
DATE BEGAN 8/1/88
DATE FINISHED 8/4/88
GROUND SURFACE EL. 18.8 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MW2-15B2.DWG

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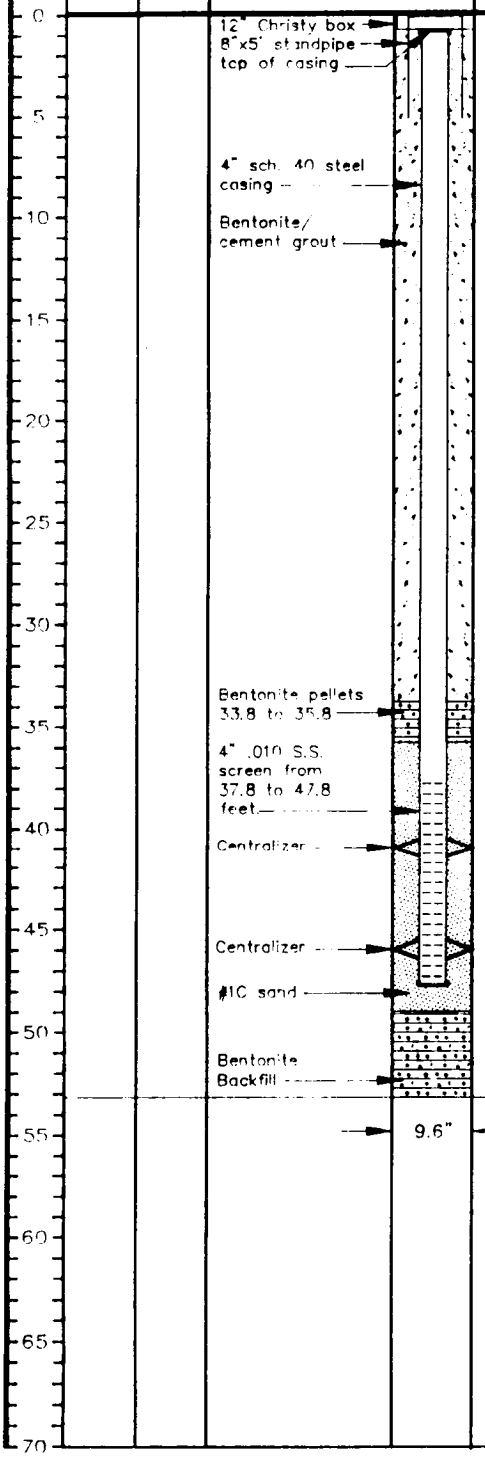
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W9-27(B1)

FIELD GEOLOGIST E. Wessner
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 53.2 feet

COORDINATES N 336,676.4 E 1,548,653.8
DATE BEGAN 8/19/88
DATE FINISHED 8/22/88
GROUND SURFACE EL. 16.9 ft.



USCS SYMBOL	PROFILE	DESCRIPTION
FILL		FILL: coarse gravels and silty clay.
CL		SILTY SANDY CLAY; dark gray-black, slightly moist, medium stiff, moderately plastic.
		SILTY CLAY; light gray to mottled brown gray, moderate to slightly moist, slightly to moderately plastic.
GW		GRAVELS; black and gray, very coarse to fine, angular, poorly sorted.
		Fuel odor, (3-4ppm in mud bin), no water.
CL		SILTY CLAY; brown-gray, moderately moist, medium stiff to ▽soft, moderately plastic.
		▽ Slight inflow of water.
SP-CH		SILTY COARSE SANDS; angular to subangular, medium grained and some gravels, poorly sorted.
		Stringers of silty clay, light olive gray, moist, soft, plastic.
		SILTY CLAY; olive gray, moist, moderately plastic to plastic.
CH		SILTY CLAY; orange brown, moist, soft to medium stiff, plastic, mottled brown gray.
		SILTY CLAY; mottled gray brown, moist, stiff, moderately plastic.
SP-CL		SANDY SILTY CLAY; with fine to medium sands, subangular, poorly sorted.
		SANDY CLAY; gray brown, wet, slightly plastic.
CL		SILTY CLAY; gray brown, moist, stiff, moderately plastic, minor sand.
		TOTAL DEPTH 53.2 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

NOTE: Redrill of W9-27(B1), (7-19-88)
No samples taken while drilling this well. Samples taken during the drilling of the original W9-27(B1-abandoned) will be used as sample data.

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MW2-27B1.DWG

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APPENDIX I

SECTION 10.0 – SITE 10 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#27

FIELD GEOLOGIST J. Hodsoll
EDITED BY D. H. Cox
CHECKED BY J. Hodsoll
TOTAL DEPTH 252 feet

COORDINATES N 337,167.5 E 1,551,008.7
DATE BEGAN 8/18/88
DATE FINISHED 8/19/88
GROUND SURFACE EL. 9.72 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							SANDY CLAY; dark brown, dry, hard, non-plastic, brittle.
5	#1	0/84					
10	#2	24/60					SANDY CLAY; dark brown, dry, hard, slightly plastic, orange oxidation, mudstone fragments.
15	#3	0/60					
20	#4	10/60					SILTY SANDY CLAY; medium brown, moist, soft, non-plastic, sticky.
25	#5	12/60					SILTY SANDY CLAY; medium brown, moist, very stiff, plastic.
30	#6	12/60					SILTY SANDY CLAY; medium brown, moist, stiff, medium plasticity.
35	#7	0/60			CL		
40	#8	24/60					SILTY CLAY; medium brown, moist, stiff, plastic.
45	#9	18/60					SILTY CLAY; medium brown, moist, very stiff, highly plastic.
50	#10	48/60					
55	#11	24/60					SANDY CLAY; medium brown, moist, very stiff, plastic, with mudstone fragments. SILTY CLAY; medium brown, moist, soft, plastic.
60	#12	60/60					SANDY CLAY; gray brown, moist, very stiff, moderate plasticity, with iron oxidation stains.
65	#13	10/60					SANDY CLAY; medium brown, moist, very stiff, plastic with mudstone fragments.
70	#14	12/60					SILTY CLAY; medium brown, moist, medium stiff, plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB27.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#27

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 252 feet

COORDINATES N 337,187.5 E 1,551,008.7
DATE BEGAN 8/18/88
DATE FINISHED 8/19/88
GROUND SURFACE EL. 9.72 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#14	12/60			CL		SILTY CLAY; medium brown, moist, soft, moderate plasticity.
75	#15	20/60					
80	#16	24/60					SILTY CLAY; dark brown, mottled gray, moist, soft, sticky.
85	#17	12/60					SANDY CLAY; medium brown, moist, soft, moderate plasticity.
90	#18	4/60			ML		SANDY SILT; medium brown, very moist, very soft, sticky.
95	#19	12/60			CL		SANDY SILTY CLAY; medium brown, very moist, very soft, sticky.
100	#20	16/60					SANDY SILTY CLAY; medium brown, very moist, very soft, sticky.
105	#21	0/60			SP		SAND; coarse grained.
110	#22	0/60					
115	#23	0/60					
120	#24	18/60			ML		CLAYEY SILT; dark gray brown, very moist, very soft, sticky.
125	#25	0/60			SP		SAND; coarse grained.
130	#26	60/60			CL		SANDY CLAY; medium brown, slightly moist, stiff, very plastic.
135	#27	27/60					
140	#28	30/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB27.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#27

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 252 feet

COORDINATES N 337,187.5 E 1,551,006.7
DATE BEGAN 8/18/88
DATE FINISHED 8/19/88
GROUND SURFACE EL. 9.72 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (SF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#28	30/60			CL		SILTY CLAY; gray brown, stiff, plastic.
145	#29	60/60					
150	#30	60/60					SILTY CLAY; gray, moist, very stiff, plastic.
155	#31	60/60					SANDY CLAY; gray brown, moist, very stiff, moderate plasticity.
160	#32	20/60					SANDY SILTY CLAY; medium brown, moist, stiff, sticky.
165	#33	8/60					SANDY CLAY; gray brown, moist, hard, non-plastic, brittle.
170	#34	54/60					SANDY SILTY; gray brown, moist, very stiff, moderate plasticity, iron oxidation staining.
175	#35	6/60			SC		CLAYEY SAND; gray, moist, very stiff, 40% sand, 10% gravel and seashells.
180	#36	12/60			GC		SANDY CLAYEY GRAVEL; gray, moist, stiff, angular mudstone clasts.
185	#37	10/60			CL		SANDY CLAY; gray, moist, very stiff, moderate plasticity, with coarse angular, lithic fragments.
190	#38	12/60			SC		CLAYEY SAND; moist, very stiff, brittle, (50% sand).
195	#39	24/60					SANDY CLAY; medium brown, moist, very stiff, moderate plasticity, with coarse grained sand.
200	#40	0/60			CL		
205	#41	31/60					
210	#42	0/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB27.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#27

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 252 feet

COORDINATES N 337,167.5 E 1,551,008.7
DATE BEGAN 8/18/88
DATE FINISHED 8/19/88
GROUND SURFACE EL. 9.72 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#42	0/60			SC		CLAYEY SAND; fine grained.
215	#43	0/60					
220	#44	3/60			CL		SANDY CLAY; medium brown, moist, stiff, plastic, with gravel clasts.
225	#45	30/60					SILTY CLAY; dark brown, moist, very stiff, plastic.
230	#46	24/60			ML		SANDY CLAYEY SILT; dark brown, moist, very stiff, moderate plasticity, 50% silt, 5% sand.
235	#47	26/60			CL		SILTY CLAY; dark gray brown, moist, very stiff, hard, plastic.
240	#48	30/60			ML		CLAYEY SANDY SILT; moist, dark brown, very stiff, plastic.
245	#49	2/60			CL		SANDY CLAY; dark gray brown, moist, very stiff, moderate plasticity.
250	#50	30/60					SANDY CLAY; dark gray brown, moist, very stiff, low plasticity.
255							TOTAL DEPTH 252 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB27.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#30

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY T. Ault
TOTAL DEPTH 252 feet

COORDINATES N 334,869.1 E 1,553,159.5
DATE BEGAN 9/19/88
DATE FINISHED 9/20/88
GROUND SURFACE EL. 19.05 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							Asphalt
5					CH		CLAY; dark brown, slightly moist, very stiff, very plastic.
10	#1	0/60					SANDY GRAVEL; multicolored, wet, loose, subangular, multilithic, coarse sand.
15	#2	0/60					
20	#3	0/60			GW		
25	#4	0/60					
30	#5	36/60		0.25-4.25			SILTY CLAY; dark gray, moist, soft, non-plastic.
35	#6	0/60					
40	#7	0/60			CL		
45	#8	0/60					
50	#9	12/60		1.0			SANDY CLAY; medium brown, moist, hard, moderate plasticity.
55	#10	0/60					SANDY GRAVEL; coarse, multilithic, subangular.
60	#11	0/60			GW		
65	#12	0/60					
70	#13	36/60		4.0	CL		SANDY CLAY; medium brown, moist, hard, brittle, coarse sand and gravel dispersal throughout.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB30.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#30

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY T. Ault
TOTAL DEPTH 252 feet

COORDINATES N 334,869.1, E 1,553,159.5
DATE BEGAN 9/19/88
DATE FINISHED 9/20/88
GROUND SURFACE EL. 19.05 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#13	36/60			CL		SANDY CLAY; medium brown.
75	#14	0/60					
80	#15	0/60					
85	#16	0/60					
90	#17	0/60					
95	#18	0/60			SP		SAND; coarse, angular.
100	#19	0/60			SM		SILTY SAND; fine grained.
105	#20	0/60					
110	#21	0/60					
115	#22	0/60					
120	#23	0/60					
125	#24	0/60					
130	#25	0/60					
135	#26	0/60					
140	#27	0/60					

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5" Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB30.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#30

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY T. Ault
TOTAL DEPTH 252 feet

COORDINATES N 334,869.1 E 1,553,159.5
DATE BEGAN 9/19/88
DATE FINISHED 9/20/88
GROUND SURFACE EL. 19.05 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#27	0/60			SM		SILTY SAND; fine grained.
145	#28	60/60					
150	#29	60/60		2.75			SILTY CLAY; gray brown, moist, very stiff, plastic.
155	#30	60/60		4.5			
160	#31	60/60		4.5			
165	#32	14/60		4.5			
170	#33	40/60		3.75			
175	#34	60/60		3.5-2.75			SANDY CLAY/CLAYEY SAND; gray brown, very stiff, non-plastic, medium grained.
180	#35	36/60		3.25	CL		SILTY CLAY/CLAY; gray, moist, very stiff, very plastic.
185	#36	60/60		4.5			SILTY CLAY; gray to moderate brown, moist very stiff, sticky.
190	#37	60/60		3.0			
195	#38	50/60		3.75			SANDY SILTY CLAY; light gray, moist, very stiff, moderate plasticity, 10% coarse angular mudstone fragments, dark gray.
200	#39	60/60		2.75-4.5			SILTY CLAY; dark gray, moist, hard, low plasticity.
205	#40	46/60		0.25-2.0			Grades to dark gray, dense, moist, soft, non-plastic.
210	#41	0/60					SILTY CLAY; dark gray, moist, hard, low plasticity.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB30.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#30

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY T. Ault
TOTAL DEPTH 252 feet

COORDINATES N 334,869.1 E 1,553,159.5
DATE BEGAN 9/19/88
DATE FINISHED 9/20/88
GROUND SURFACE EL. 19.05 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210							SILTY CLAY; medium brown, moist, stiff, low plasticity.
215	#42	48/60		2.25			
220	#43	12/60		4.5	CL		
225	#44	60/60		4.5			
230	#45	60/60		4.25			Grades to dark brown color, small 1/4" sand zones intersersed throughout, increasing plasticity.
235	#46	0/60			SM		SILTY SAND; fine to medium grained.
240	#47	20/60		3.75			SANDY SILTY CLAY; dark brown, moist, very stiff, moderate plasticity, some sand (5–10%).
245	#48	4/60		3.75	CL		
250	#49	30/60		3.75			
255							TOTAL DEPTH 252 FEET 4-1/2" diameter boring
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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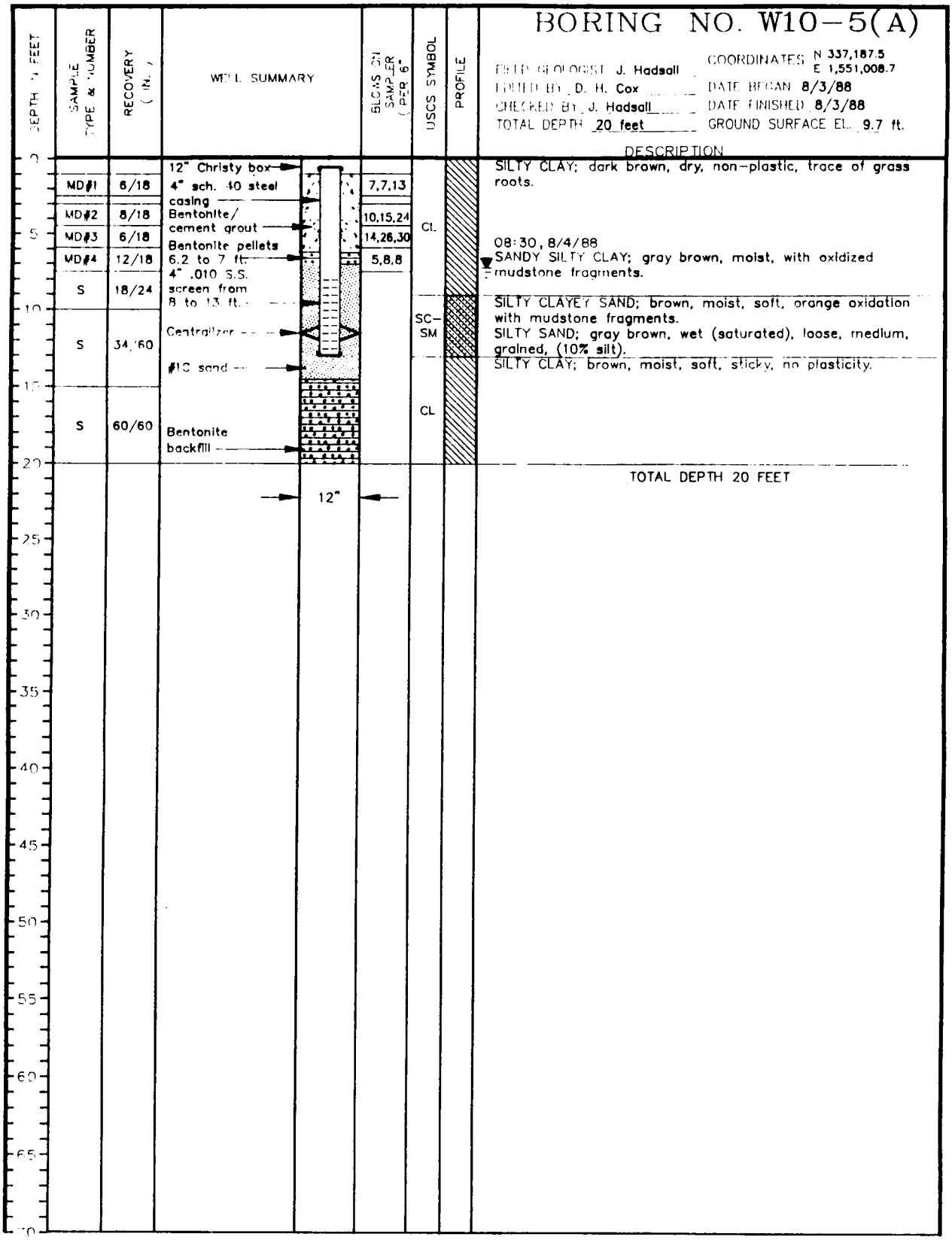
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W10-5(A)

FIELD GEOLOGIST J. Hadsall — COORDINATES N 337,187.5 E 1,551,008.7
LOGGED BY D. H. Cox — DATE BEGAN 8/3/88
CHECKED BY J. Hadsall — DATE FINISHED 8/3/88
TOTAL DEPTH 20 feet — GROUND SURFACE EL. 9.7 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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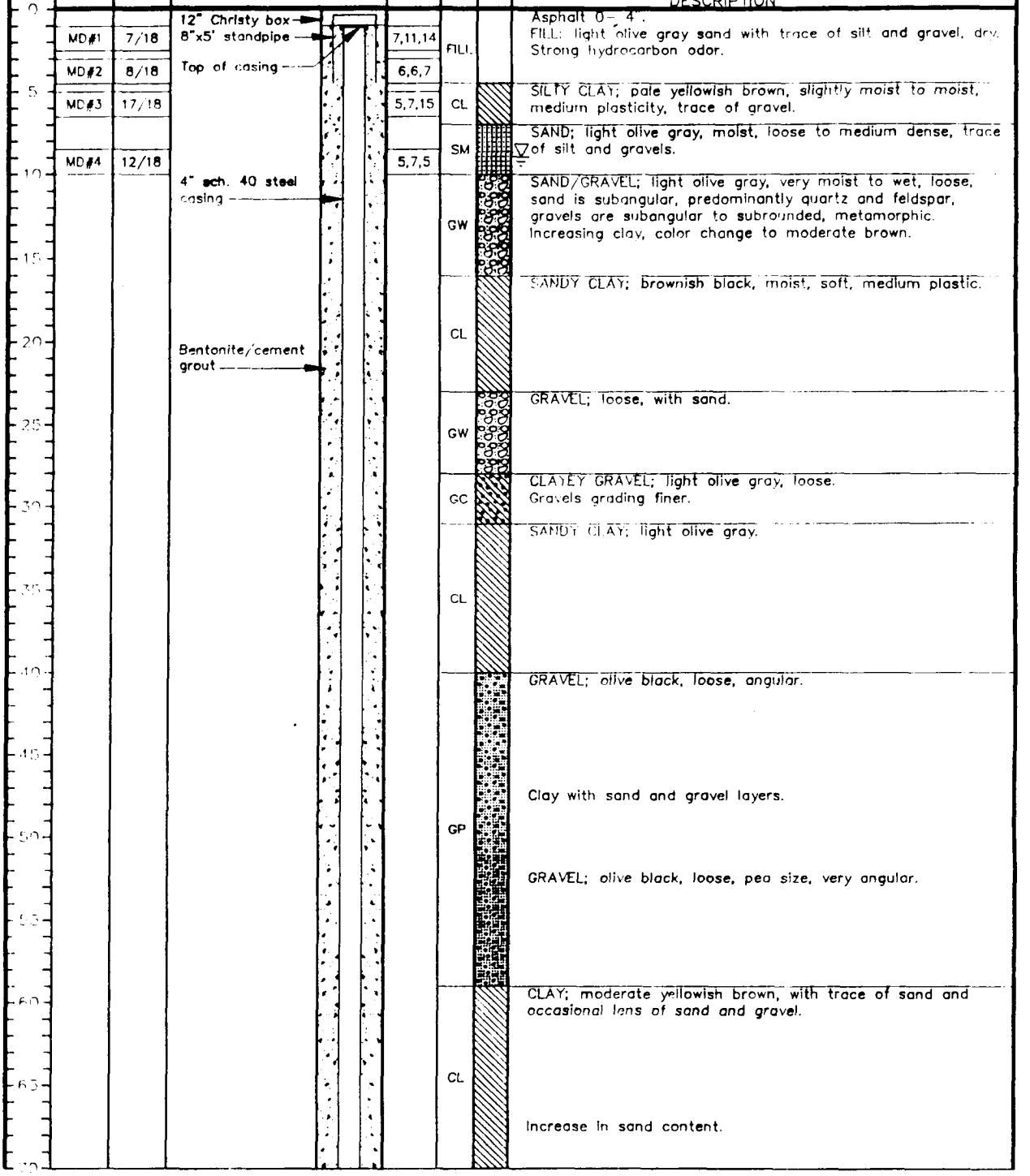
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W10-6(C)

FIELD GEOLOGIST R. Duncan
EDITED BY D. Cox
CHECKED BY J. Hodsoll
TOTAL DEPTH 178 feet

COORDINATES N 334,869.4 E 1,553,189.6
DATE BEGAN 9/29/88
DATE FINISHED 10/3/88
GROUND SURFACE EL. 18.9 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW10-6C.DWG

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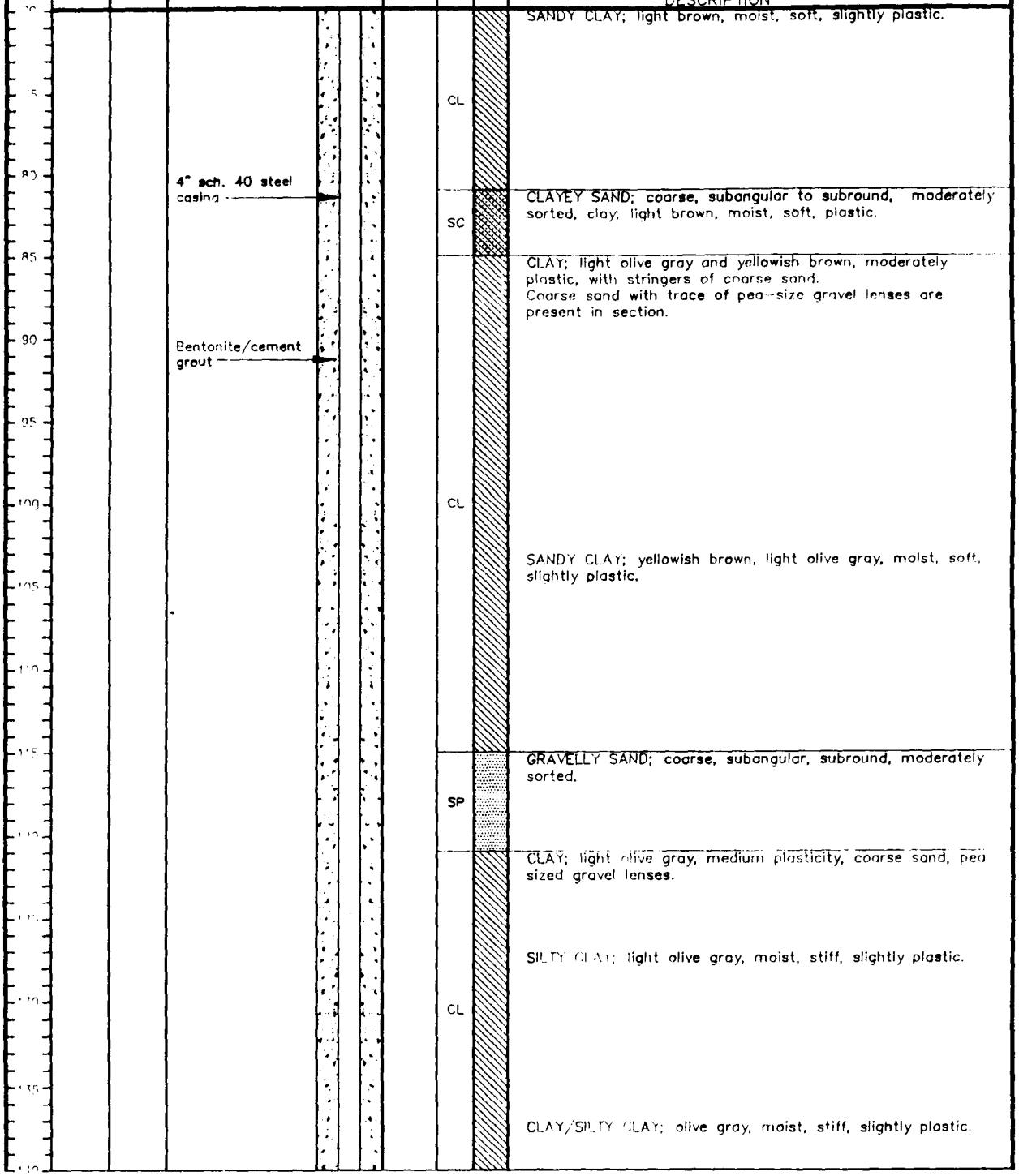
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W10-6(C)

FIELD GEOLOGIST R. Duncan
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 178 feet

COORDINATES N 334,869.4 E 1,553,189.6
DATE BEGAN 9/29/88
DATE FINISHED 10/3/88
GROUND SURFACE EL. 18.9 ft.



USCS SYMBOL	DESCRIPTION
CL	SANDY CLAY; light brown, moist, soft, slightly plastic.
SC	CLAYEY SAND; coarse, subangular to subround, moderately sorted, clay; light brown, moist, soft, plastic.
CL	CLAY; light olive gray and yellowish brown, moderately plastic, with stringers of coarse sand. Coarse sand with trace of pea-size gravel lenses are present in section.
CL	SANDY CLAY; yellowish brown, light olive gray, moist, soft, slightly plastic.
SP	GRAVELLY SAND; coarse, subangular, subround, moderately sorted.
CL	CLAY; light olive gray, medium plasticity, coarse sand, pea sized gravel lenses.
CL	SILTY CLAY; light olive gray, moist, stiff, slightly plastic.
CL	CLAY/SILTY CLAY; olive gray, moist, stiff, slightly plastic.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW10-6C.DWG

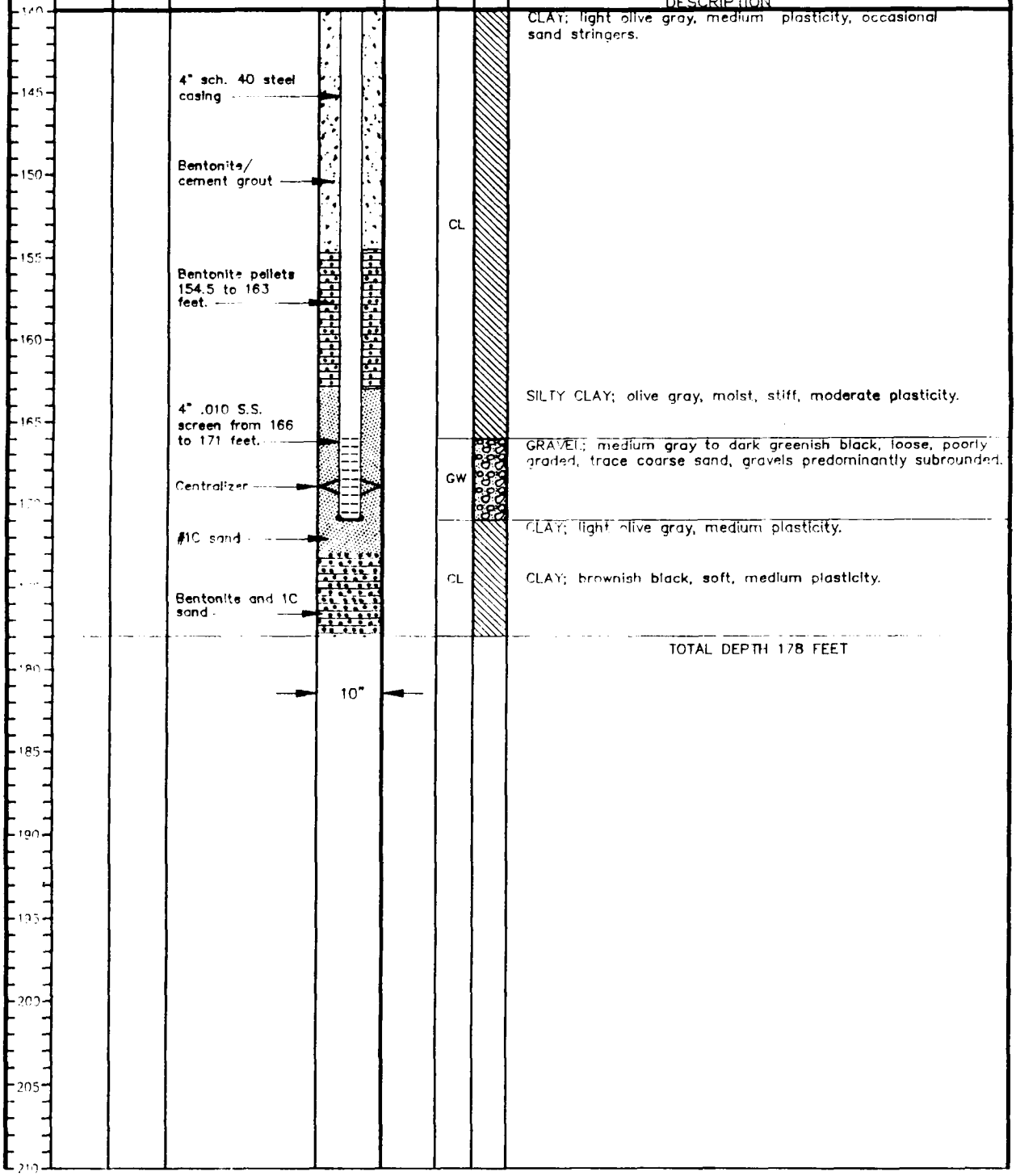
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W10-6(C)

FIELD GEOLOGIST R. Duncan
EDITED BY D. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 178 feet

COORDINATES N 334,869.4 E 1,553,189.6
DATE BEGAN 9/29/88
DATE FINISHED 10/3/88
GROUND SURFACE EL. 18.9 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD = California Modified
S = Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW10-6C.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

APPENDIX I

SECTION 11.0 – SITE 11 BORING LOGS

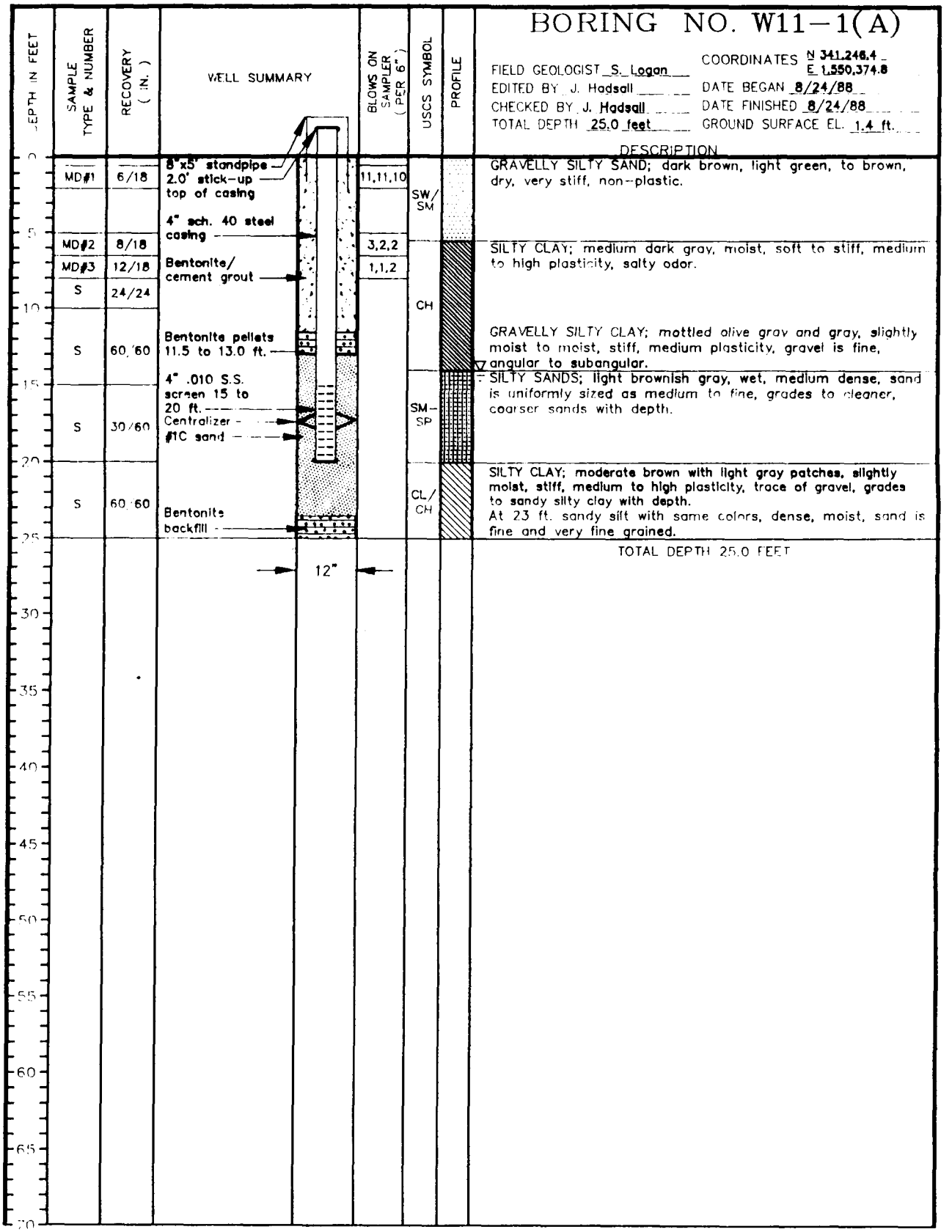
DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. W11-1(A)

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 25.0 feet

COORDINATES N 341,246.4 E 1,550,374.8
DATE BEGAN 8/24/88
DATE FINISHED 8/24/88
GROUND SURFACE EL. 1.4 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW11-1A.DWG

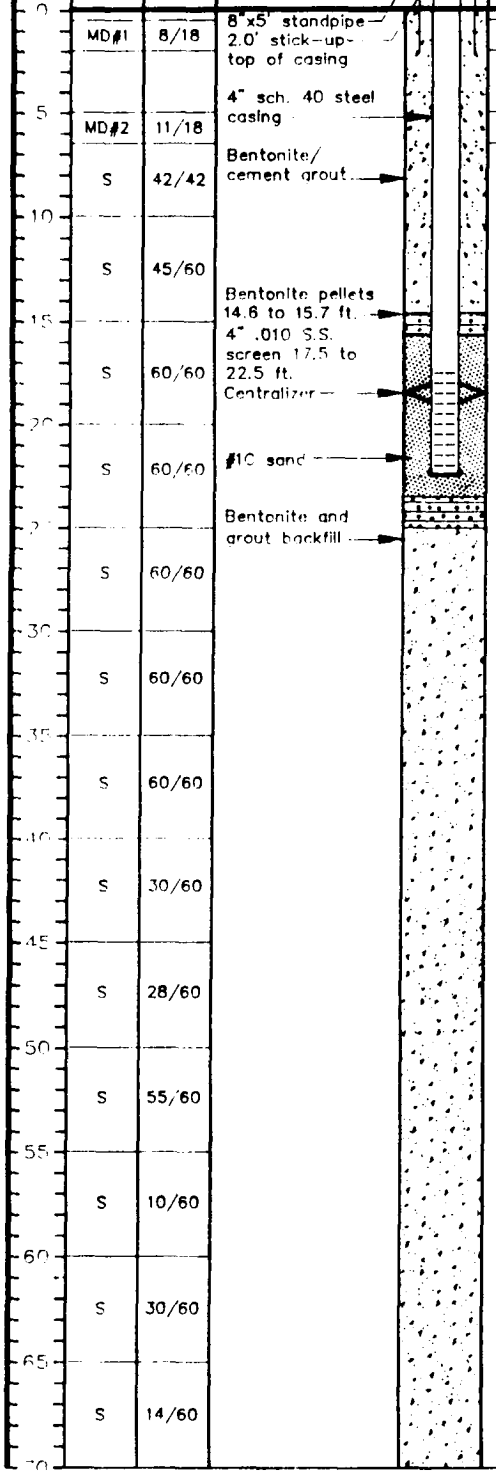
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W11-2(A)

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 80 feet

COORDINATES N 341,444.3 E 1,550,241.1
DATE BEGAN 8/25/88
DATE FINISHED 8/29/88
GROUND SURFACE EL. 1.7 ft.



DESCRIPTION

SILTY SANDY GRAVEL; light brown, dry, loose (top soil).

SILTY CLAY; medium gray and medium dark gray, moist, soft, high plasticity, becomes drier and less plastic with depth, many organic fibers (roots), trace of coarse sand.

SILTY CLAY; medium to light gray with green spots, very moist to wet, soft to stiff, medium to high plasticitty, trace of medium grained sands, color grades to browner shades with depth.

CLAYEY SILT; moderate brown with light gray spots, moist, stiff, low plasticity.

▽ SANDY SILT; moderate brown and light gray, wet, soft, low plasticity, sand is uniformly medium and fine grained.

SANDY SILT; moderate brown and light olive gray, moist to slightly moist, very stiff, low plasticity.

●24 ft. small layer with fine angular gravels in with silts.

SILTY CLAY; moderate brown, moist, very soft to soft, high plasticity, trace of medium rounded sands.

SANDY SILT; pale brown, wet, soft, low plasticity.
CLAYEY SILT; grayish olive with grayish yellow streaks, slightly moist to dry, very stiff to hard, low plasticity.

SILTY CLAY; light brown and moderate brown, moist, soft to stiff, high to medium plasticity, fine subang. gravel

SANDY SILT; medium brown, wet, stiff, low plasticity, grades to predominantly clean, brown and black medium grained sand.

SAND; medium brown and black, wet-saturated, medium dense, dries out with depth, relatively clean.

Sands as above, but with more fine grained sand, wet-saturated.

SAND; moderate brown and black with some white, wet-saturated, medium dense, poorly graded.

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW11-2A.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W11-2(A)

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 80 feet

COORDINATES N 341,444.3 E 1,550,241.1
DATE BEGAN 8/25/88
DATE FINISHED 8/29/88
GROUND SURFACE EL. 1.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
70							
	S	30/60	Bentonite/ cement grout		SP		SAND; moderate brown and black with some white, wet, medium dense, moderately graded.
75					GW		FINE GRAVEL/COARSE SAND; clean, rounded.
					SM		SILTY SAND; moderate to light brown, wet, stiff, fine sand.
	S	32/60			SP		SAND; moderate brown and black with some white, wet saturated, medium dense, predominantly clean, poorly graded.
80							TOTAL DEPTH 80 FEET
			12"				
85							
90							
95							
100							
105							
110							
115							
120							
125							
130							
135							
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MFW11-2A.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

APPENDIX I

SECTION 12.0 – SITE 12 BORING LOGS

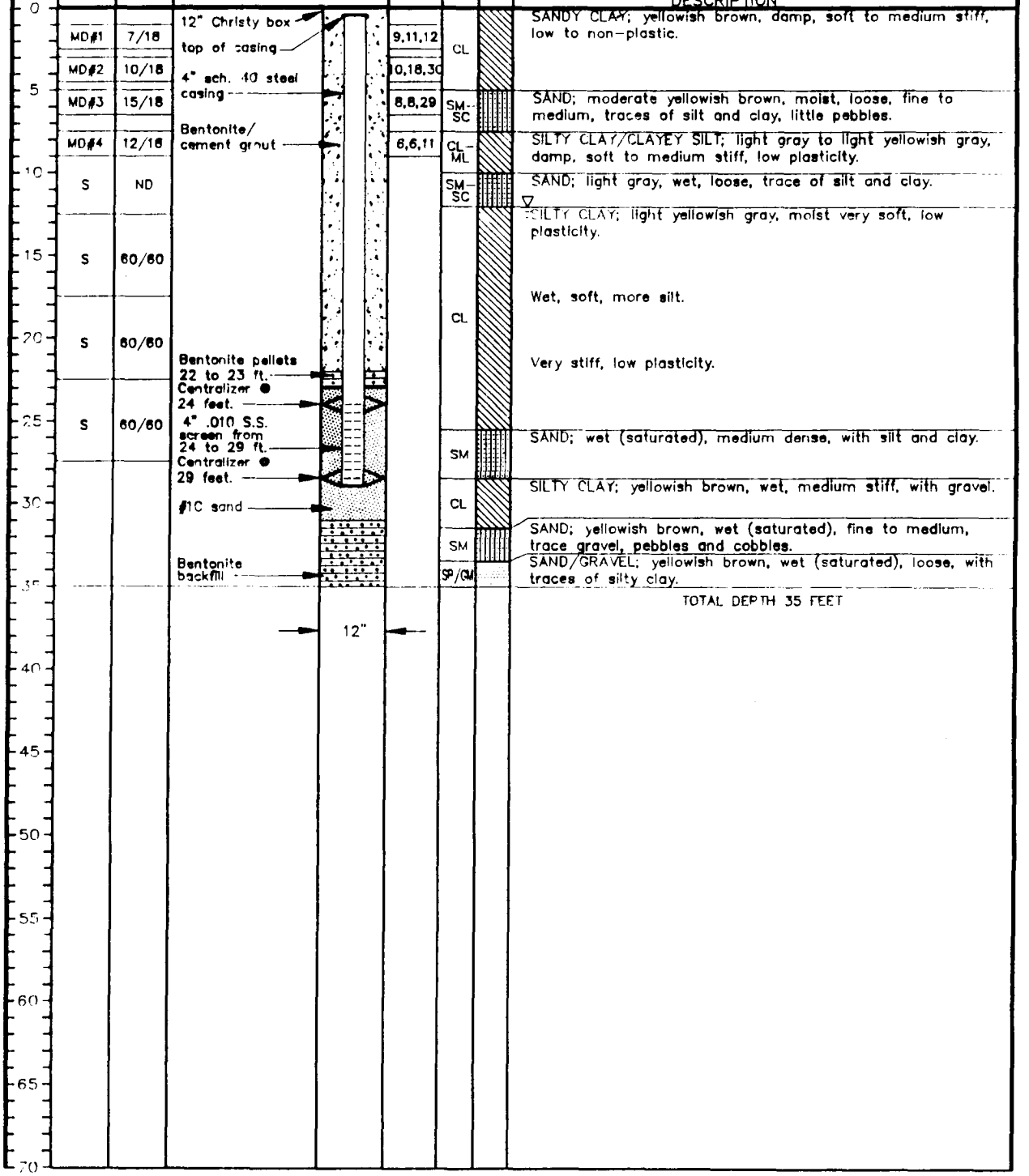
DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. W12-1(A)

FIELD GEOLOGIST G.L. Williams
EDITED BY J. Hadsall
CHECKED BY B. Manchon
TOTAL DEPTH 35 feet

COORDINATES N 338,009.7 E 1,549,044.6
DATE BEGAN 9/7/88
DATE FINISHED 9/8/88
GROUND SURFACE EL. 8.9 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W12-1A.DWG

IT ...Creating a Safer Tomorrow

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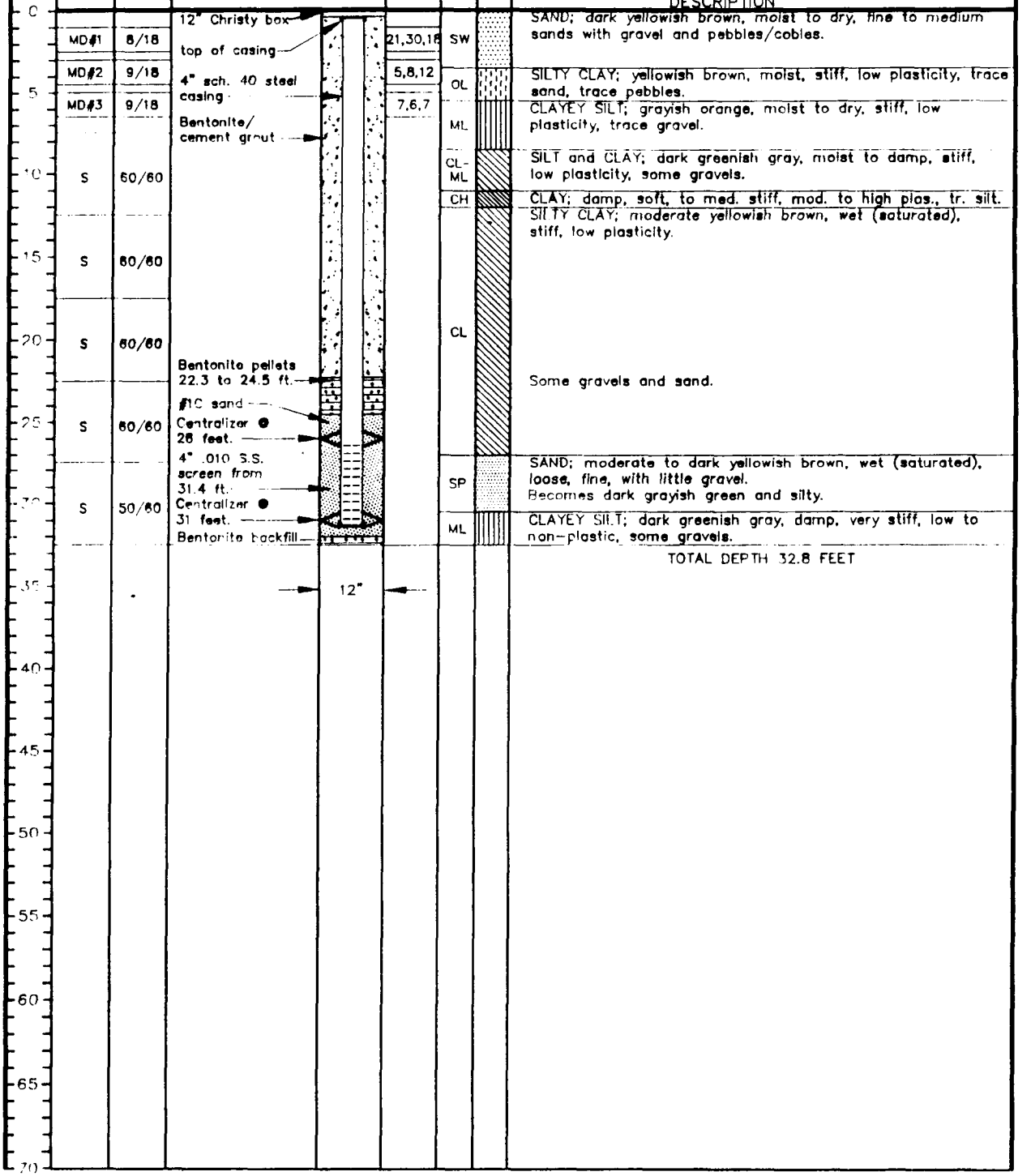
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W12-2(A)

FIELD GEOLOGIST G.L. Williams
EDITED BY J. Hadsall
CHECKED BY B. Manchon
TOTAL DEPTH 32.8 feet

COORDINATES N 338,270.3 E 1,549,017.0
DATE BEGAN 9/8/88
DATE FINISHED 9/9/88
GROUND SURFACE EL. 9.0 ft.



DESCRIPTION

SAND; dark yellowish brown, moist to dry, fine to medium sands with gravel and pebbles/cobles.

SILTY CLAY; yellowish brown, moist, stiff, low plasticity, trace sand, trace pebbles.

CLAYEY SILT; grayish orange, moist to dry, stiff, low plasticity, trace gravel.

SILT and CLAY; dark greenish gray, moist to damp, stiff, low plasticity, some gravels.

CLAY; damp, soft, to med. stiff, mod. to high plas., tr. silt.

SILTY CLAY; moderate yellowish brown, wet (saturated), stiff, low plasticity.

Some gravels and sand.

SAND; moderate to dark yellowish brown, wet (saturated), loose, fine, with little gravel.
Becomes dark grayish green and silty.

CLAYEY SILT; dark greenish gray, damp, very stiff, low to non-plastic, some gravels.

TOTAL DEPTH 32.8 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

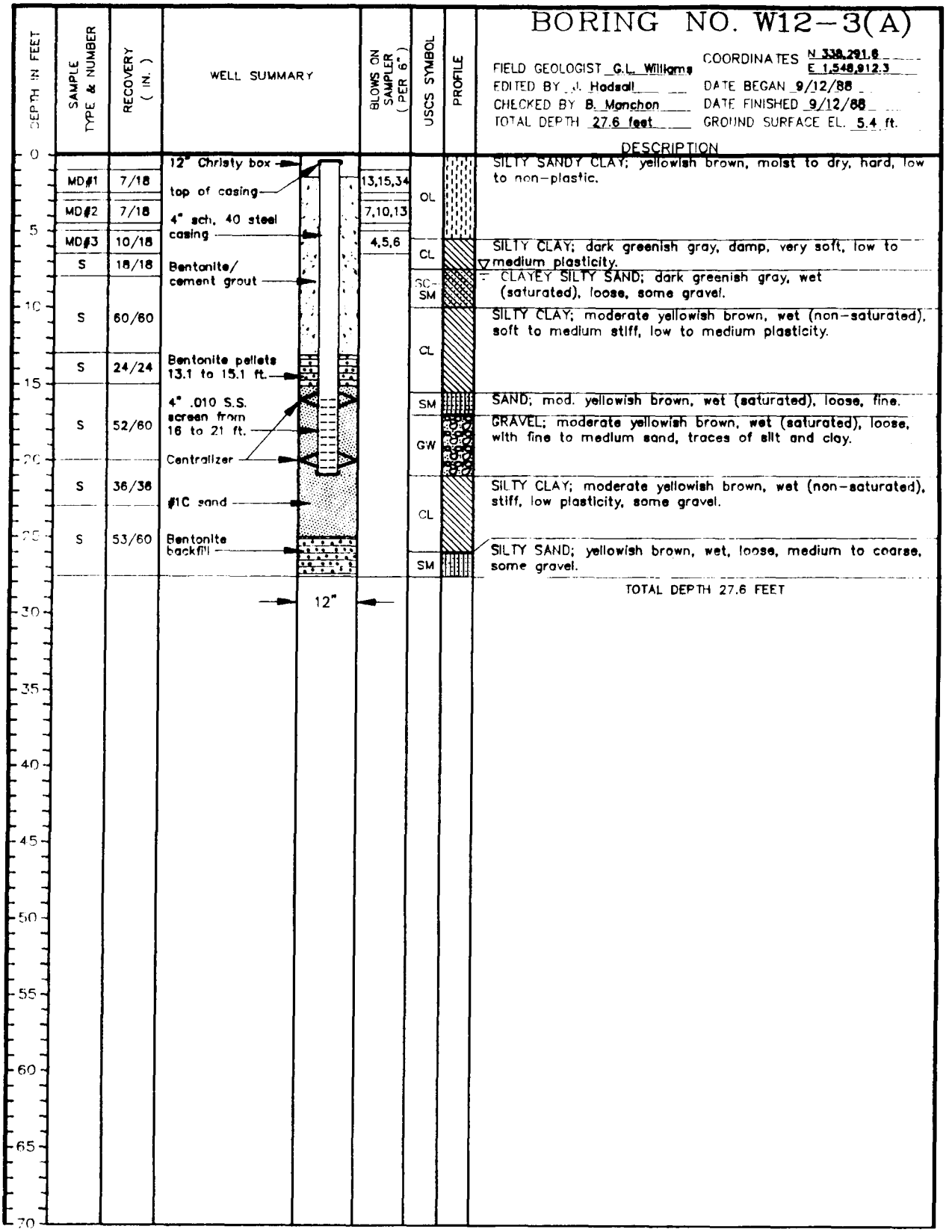
AutoCAD FILE: W12-2A.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W12-3(A)

FIELD GEOLOGIST G.L. Williams
EDITED BY J. Hodsall
CHECKED BY B. Monchon
TOTAL DEPTH 27.6 feet
COORDINATES N 338,291.8 E 1,548,912.3
DATE BEGAN 9/12/88
DATE FINISHED 9/12/88
GROUND SURFACE EL. 5.4 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W12-3A.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

NO BORINGS OR WELLS WERE DRILLED AT SITE 13

APPENDIX I

SECTION 14.0 – SITE 14 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#28

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 333,680.8 E 1,549,926.3
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							Asphalt; fill material.
	#1	0/60			FILL		FILL: sandy clayey gravel; gray to brown, coarse and fine grained, angular, with sand; coarse to medium grained.
5	#2	18/60		2.5–3.0	ML		CLAYEY SILT; mottled gray, brown to tan and cream, dry, stiff to very stiff, low to medium plasticity, trace of rounded, medium grained sand, trace of wood fibers.
10	#3	3/60		0.8	GC		SANDY CLAYEY GRAVEL; black to brown, gravel is fine grained, angular, sand is coarse to medium grained, low to medium plasticity, trace of wood fibers.
					CL		SANDY SILTY CLAY; gray and light brown, with cream patches, moist, soft, high plasticity, sand is medium to fine grained, subrounded to rounded.
15	#4	0/60			GW		SANDY GRAVEL; gray, gravel is fine and coarse grained, subrounded to rounded, sand is coarse to medium grained, significant fraction of woodlike, fiberous chips, brown, do not float in water.
20	#5	0/60					
25	#6	0/60					
30	#7	0/60			SW		GRAVELLY SAND; black to tan, sand is coarse to fine grained, rounded, gravel is fine, subrounded. Prevalent wood chips and fragments to 5mm long, no odor.
35	#8	10/60		4.0–4.5	ML		CLAYEY SILT; mottled dark gray and dark brown with cream patches, slightly moist, hard, medium to low plasticity, trace of fine sands, no odor.
40	#9	20/60		2.0–2.5	CL–ML		CLAY/CLAYEY SILT; dark brown with dark and light gray, dry to slightly moist, medium plasticity, no odor.
					SC		CLAYEY SAND; black and gray, coarse to fine grained, rounded.
45	#10	0/60					
50	#11	0/60					Trace of fine gravel and wood fibers – very thin (splinters) to 1.5" long.
55	#12	0/60					*Small gray clay lens (2" thick), interbedded, moist, soft, very high plasticity.*
60	#13	0/60					CLAYEY SAND; black to brown, predominantly medium grained, subrounded.
65	#14	18/60		2.25–2.75	CH ML		SILTY CLAY/SANDY SILT; clay is dark brown with gray streaks, dry, very stiff, high plasticity, silt is brown, moist, very stiff, low plasticity, sand is fine to very fine grained.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB28.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#28

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet
COORDINATES N 333,680.8 E 1,549,926.3
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70	#15	0/60			SC		CLAYEY SAND; black and gray, medium to coarse grained, subangular to subrounded.
75	#16	12/60		0.4–1.1	CL–CH		SILTY CLAY; grading to sandy clay. Silt is orangish brown with light gray spots, moist, soft, high plasticity, sand is coarse to medium , subrounded.
80	#17	30/60		2.3–4.2	CH		SILTY CLAY; light and dark gray, moist, very stiff to hard, high plasticity, trace of fine grained sands.
85	#18	24/60		1.3			SANDY SILTY CLAY; light brown and gray, slightly moist, stiff, medium to high plasticity, sand is coarse to medium grained.
90	#19	0/60			SC		CLAYEY SAND; light brown, soft, medium plasticity, sand is coarse to medium grained, subangular to subrounded.
95	#20	5/60		2.0	CL		SANDY SILTY CLAY; tan to mottled dark gray, brown, tan, slightly moist, high to med. plasticty, sand is fine to v. fine.
100	#21	0/60			SC		CLAYEY SAND; gray, coarse to fine, predominantly medium grained, angular to subrounded.
105	#22	50/60		0.7–1.5	CH		SILTY CLAY; dark gray and brown, slightly moist to moist, stiff, high plasticity, trace of fine sand.
110	#23	46/60		3.25	CL		SILTY CLAY; brown with gray patches, dry, very stiff, medium plasticity.
115	#24	30/60		0.75–4.25	ML–CH		CLAYEY SILT/SILTY CLAY; clayey silt is mottled gray and brown, dry, hard, low plasticity, silty clay is tan and brown, moist to very moist, soft, high plasticty.
120	#25	36/60		1.0	SC		CLAYEY SAND; tan, coarse to med. grained.
					CH		CLAY; gray, moist, stiff, high plasticity, trace of silt and fine sand.
125					SC		CLAYEY SAND; tan, coarse to med. grained.
	#26	40/60		3.0–3.5	ML–CH		CLAYEY SILT/SILTY CLAY; clayey silt is mottled light and dark gray, dry, very stiff, low plasticity, silty clay is mottled brown and gray, moist to very stiff, medium to high plas.
130	#27	0/60			GC		CLAYEY SANDY GRAVEL; gray and black, coarse and fine grained, subrounded and rounded, sand is coarse to medium grained, angular to subrounded.
135	#28	48/60		1.0 - 3.5	CL		SILTY CLAY; dark deep gray, moist, stiff to very stiff, medium plasticty, laminated beds.
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB28.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#28

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 333,680.6 E 1,549,926.3
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#29	60/60		3.5–4.5	ML		CLAYEY SILT; dark gray with cream spots, dry to slightly moist, very stiff to hard, low plasticity, blocky structure.
145	#30	26/60		4.0–4.5			
150	#31	52/60		2.0–2.3	CL		SILTY CLAY; dark gray and dark brown with creamy white patches and streaks, moist to very moist, stiff to very stiff, medium plasticity.
155	#32	40/60		2.5–2.6			SILTY CLAY; dark deep gray, slightly moist to moist, very stiff, medium plasticity.
160	#33	60/60		2.25			
165	#34	8/60		2.30	ML		CLAYEY SILT; dark gray and dark brown, dry to slightly moist, very stiff, low to medium plasticity, laminated structure (platey).
170	#35	0/60			SM–SC		SILTY CLAYEY SAND; black to tan, coarse to medium grained, subrounded to rounded.
175	#36	52/60		1.25–2.0	SC		CLAYEY SAND; small (inches thick) sandy clay beds interspersed in this interval.
180	#37	0/60			CH		SILTY CLAY; dark gray, dry, stiff, high plasticity, tr. fine sand
185	#38	0/60			ML		CLAYEY SILT; gray and gray brown, moist, very stiff, low plas.
190	#39	0/60			CH		SILTY SANDY CLAY; brown with cream spots, moist, stiff, high plasticity.
195	#40	0/60			CL		SANDY CLAY; gray and brown, soft, medium to high plasticty sand is coarse and medium grained with some fine grained particles, loose.
200	#41	0/60			SC		CLAYEY SAND; black and gray to tan, coarse to medium grained, some fine grained, angular to sub-rounded, some particle cementation.
205	#42	55/60		1.0–1.6	SW		SAND; black to gray, coarse to fine grained, subangular, to rounded, trace of fines and fine gravel.
210							GRAVELLY SAND; sand is all earthen colors and white, sub-angular to rounded, coarse to very fine grained, gravel is fine grained, angular.
					SP		SAND; mostly brown colors with some gray, subrounded and rounded, medium grained, trace of coarse and fine grained, trace of fine gravels.
					CL		SILTY CLAY/GRAVELLY CLAY/SANDY CLAY; orangish brown and light gray to gray, moist to very moist, stiff, medium plasticity, sand is fine and very fine, gravel is coarse to fine, rounded.

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB28.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#28

FIELD GEOLOGIST S. Logan
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 260 feet

COORDINATES N 333,660.8 E 1,549,926.3
DATE BEGAN 8/5/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.4 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#43	48/60		3.6–4.0	ML		CLAYEY SILT; mottled light and dark gray and brown, dry, very stiff to hard, low to non-plastic, trace of medium grained sand, blocky stucture.
215	#44	54/60		3.3–3.5			
220	#45	47/60		2.5–4.5			
225	#46	52/60		3.0–2.5			
230	#47	0/60			SC		CLAYEY SAND; light brown and grays, medium to fine grained, low plasticity, angular to subrounded.
235	#48	0/60					
240	#49	0/60			SW		SAND; black to brown, coarse to fine grained, subrounded to rounded, trace of fines, trace of fine gravels.
245	#50	60/60		1.5–2.5	CL–ML		SILTY CLAY/SANDY SILT; clay is dark gray with some lighter shades of gray, moist, stiff to very stiff, medium plasticity, silt is dark gray, dry, low plasticity, sand is fine to very fine, grained.
250	#51	0/60					
255	#52	38/60		3.25–3.75	ML		CLAYEY SILT; dark gray grading to mottled dark gray and dark brown with light gray streaks, moist, stiff to hard, low plasticity.
260							TOTAL DEPTH 260 FEET *4-1/2" diameter boring*
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB28.DWG

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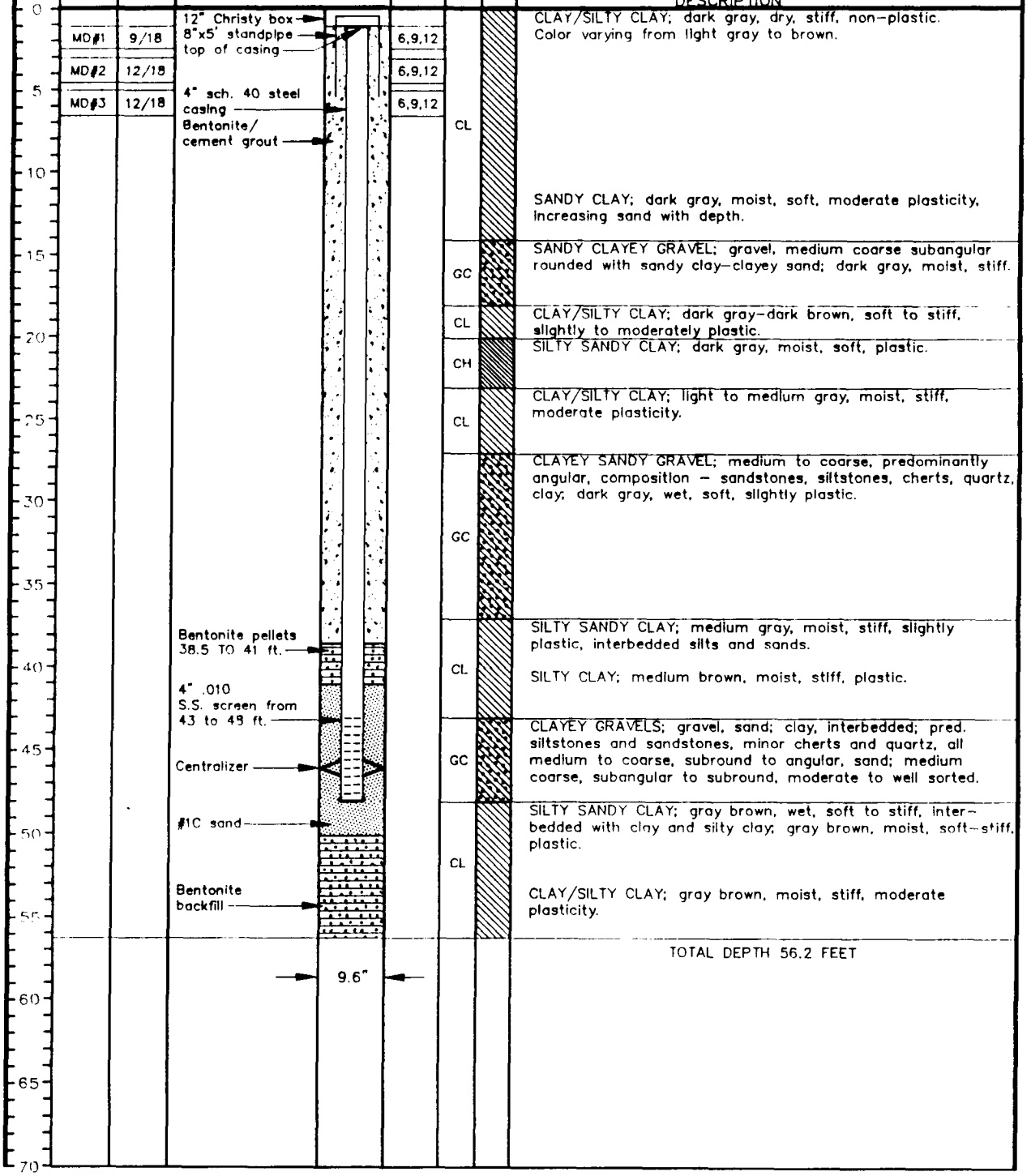
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-1(B1)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 56.2 ft.
COORDINATES N 333,688.5, E 1,540,923.9
DATE BEGAN 8/24/88
DATE FINISHED 8/24/88
GROUND SURFACE EL. 30.3



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

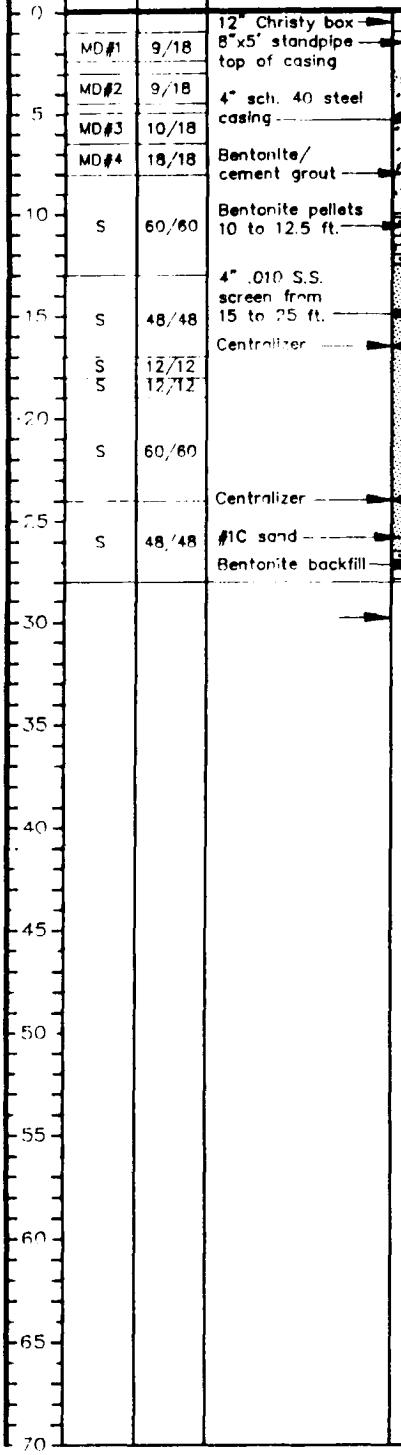
AutoCAD FILE W14-1B1.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-2(A)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadgall
CHECKED BY J. Hadgall
TOTAL DEPTH 28.0 ft.
COORDINATES N 333,682.5 E 1,549,915.9
DATE BEGAN 7/29/88
DATE FINISHED 8/1/88
GROUND SURFACE EL. 30.5



DESCRIPTION

CLAY/SILTY CLAY; medium dark gray, dry, stiff, slightly plastic.

CLAY/SILTY CLAY; medium gray green, moist, soft, plastic.

8-13-88

CLAY/SILTY CLAY; medium dark gray, predominantly dry, stiff, slightly plastic.

SANDY CLAY; gray green, wet, soft, plastic, sticky, very fine sand.

CLAYEY SAND; medium dark gray, wet, fine to medium.

GRAVELLY SAND; dark gray black, medium coarse, w/pebbles

CLAY; medium dark gray, stiff, plastic.

SANDY CLAY; dark gray, wet, soft, non-plastic, silty, fine grained.

CLAY; medium dark gray, moist, stiff, plastic, organic material.

TOTAL DEPTH 28.0 FEET

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W14-2A.DWG

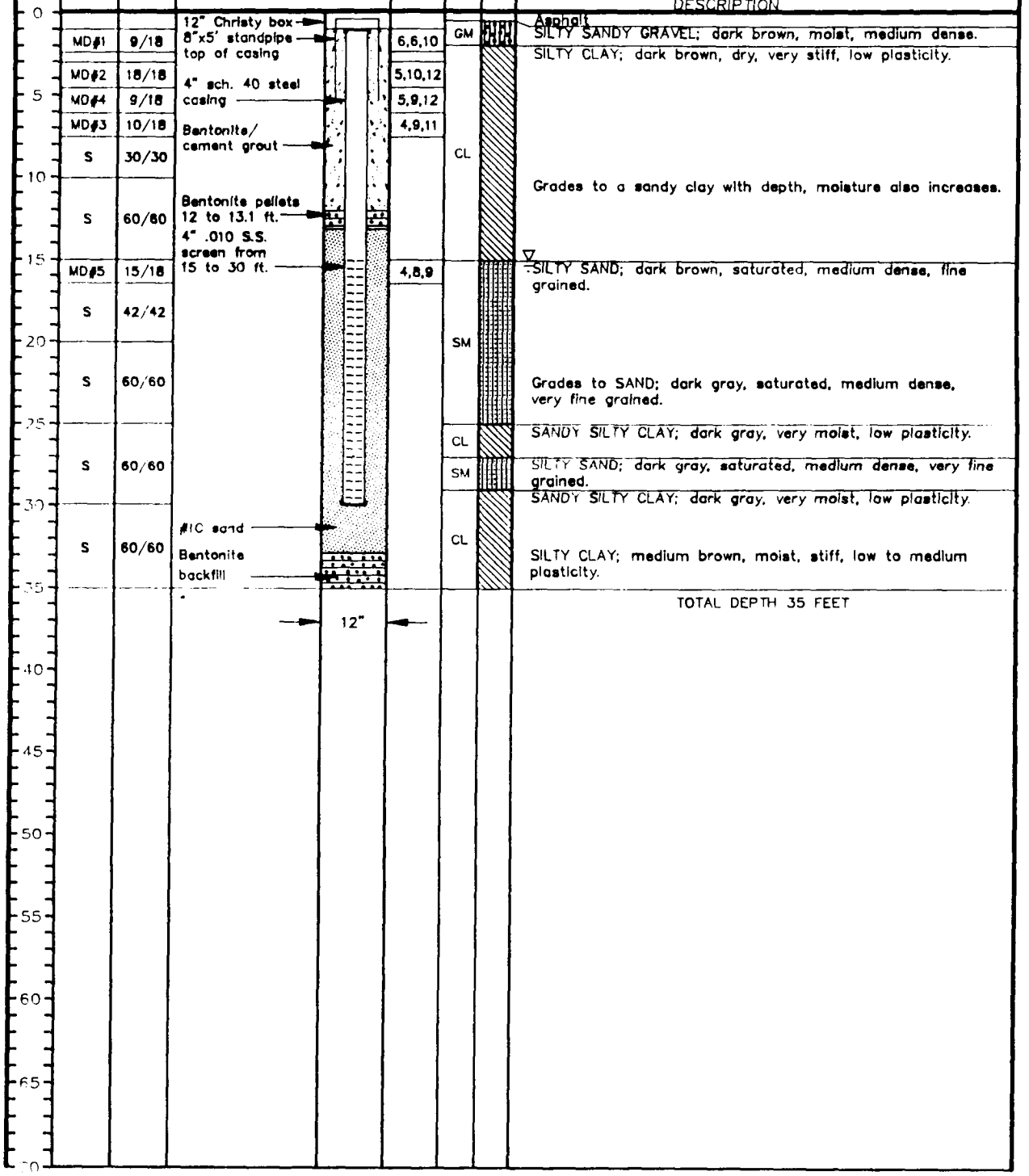
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-3(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY D. H. Cox
CHECKED BY J. Hadsall
TOTAL DEPTH 35 feet

COORDINATES N 333,561.9 E 1,549,910.7
DATE BEGAN 7/20/88
DATE FINISHED 7/20/88
GROUND SURFACE EL. 31.7 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AUTOCAD FILE: W14-3A.DWG

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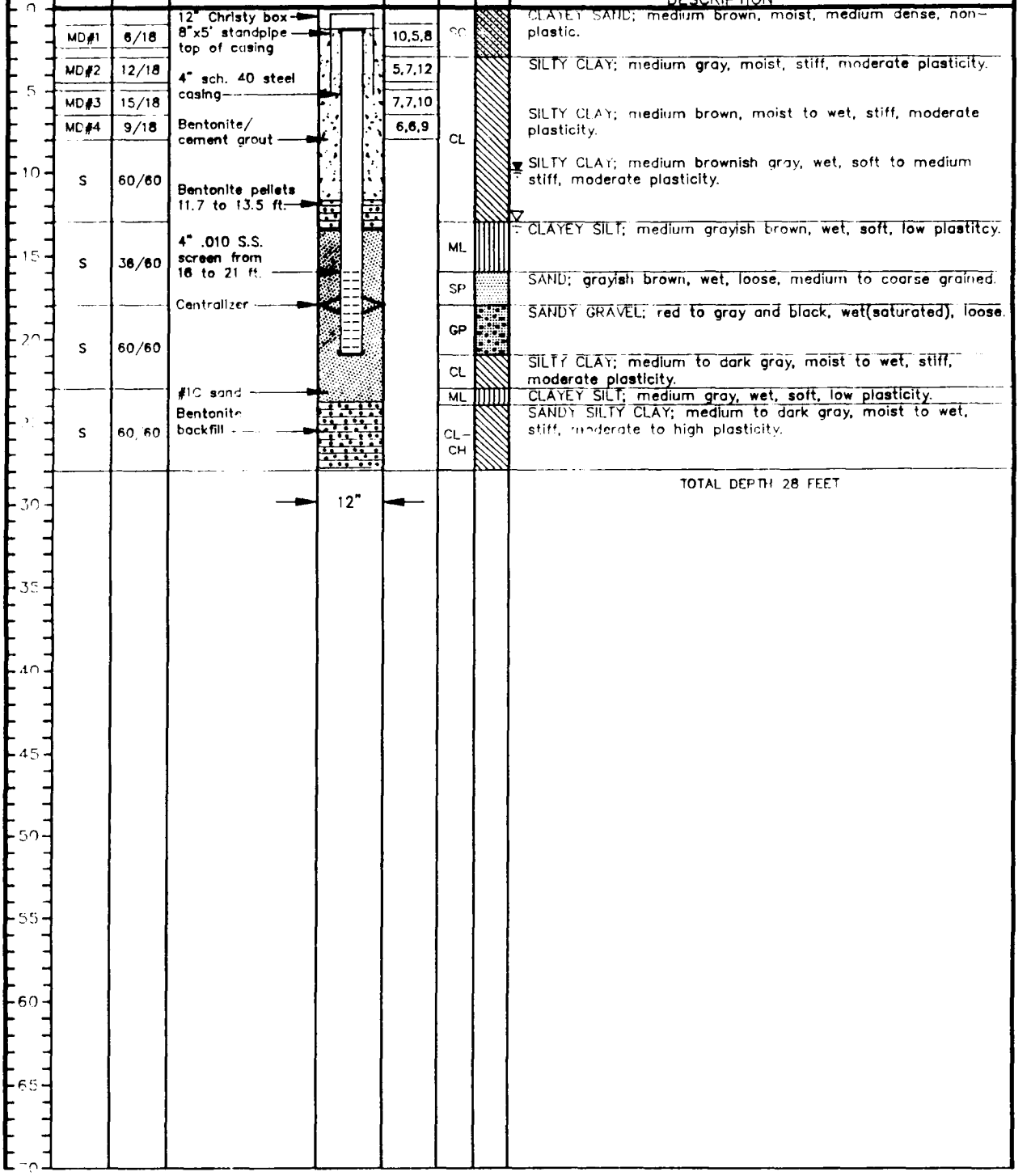
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-4(A)

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 28.0 feet
COORDINATES N 333,735.9 E 1,549,948.9
DATE BEGAN 7/28/88
DATE FINISHED 7/28/88
GROUND SURFACE EL. 29.5 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

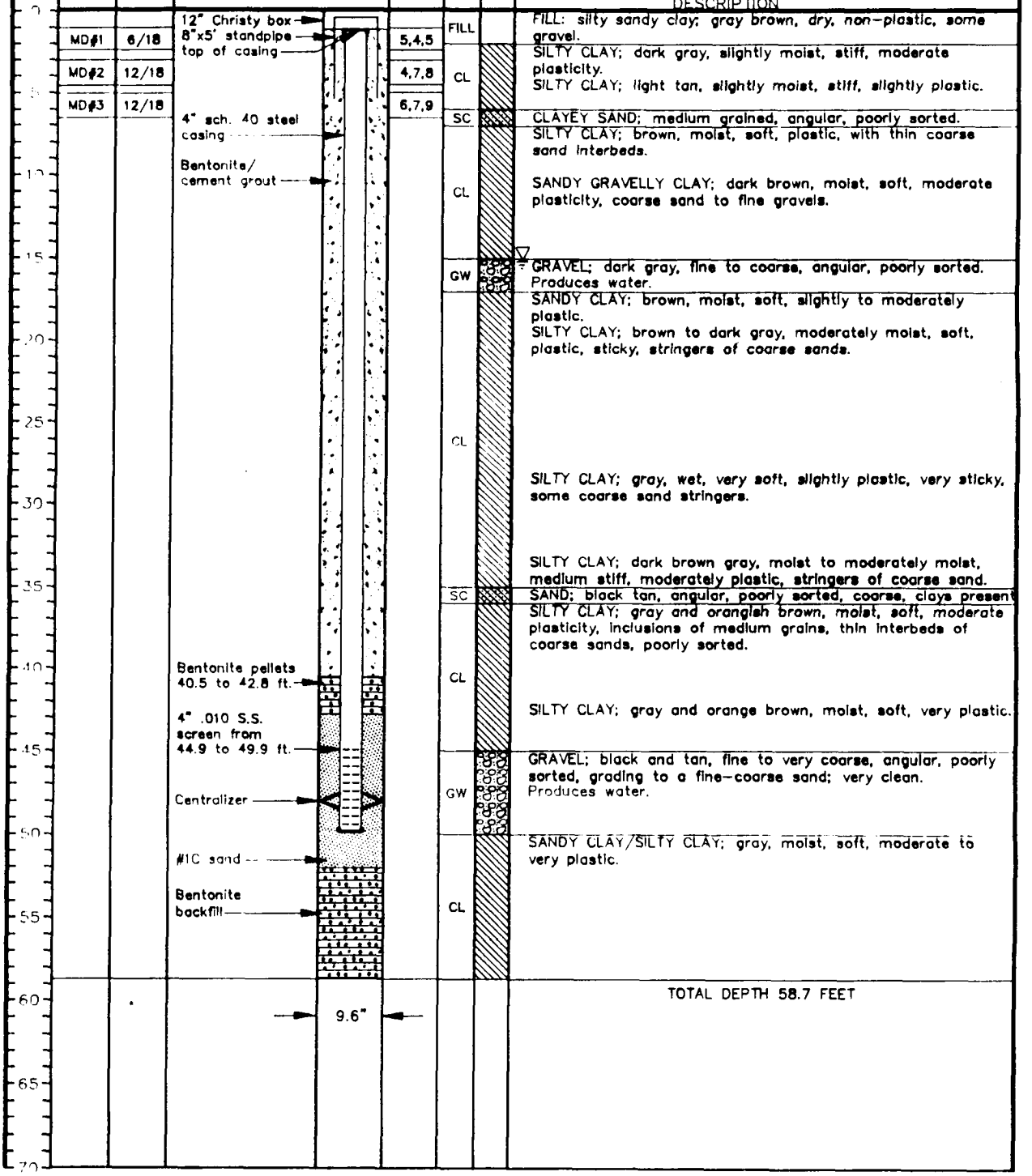
AutoCAD FILE: W14-4A.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-5(B1)

FIELD GEOLOGIST E. Wessner
EDITED BY J. Hadsall
CHECKED BY B. Manchon
TOTAL DEPTH 58.7 ft.
COORDINATES N 333,567.8 E 1,549,900.6
DATE BEGAN 8/11/88
DATE FINISHED 8/12/88
GROUND SURFACE EL. 31.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE W14-5B1.DWG

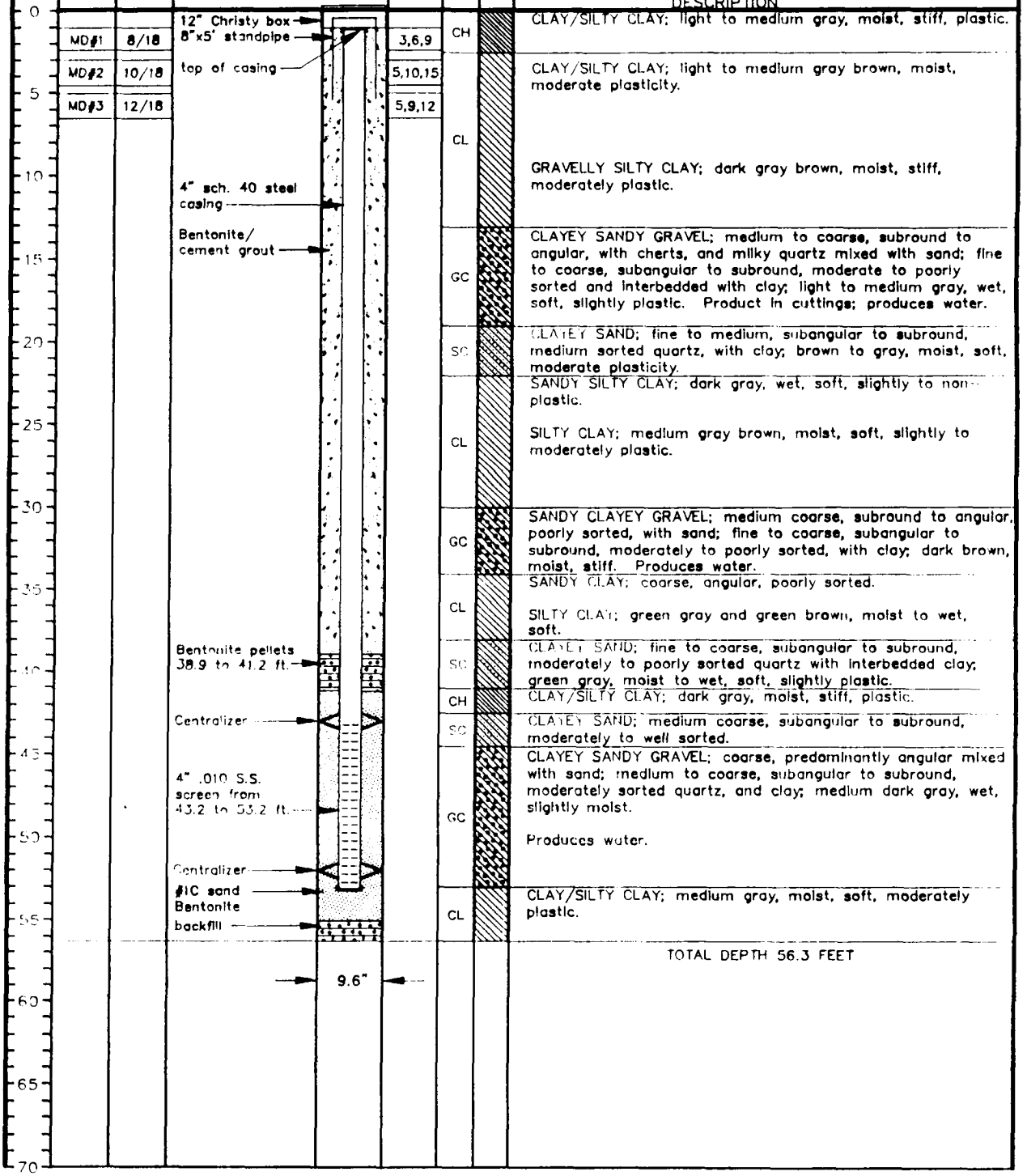
IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W14-6(B1)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 56.3 feet

COORDINATES N 333,732.7, E 1,549,944.3
DATE BEGAN 8/25/88
DATE FINISHED 8/26/88
GROUND SURFACE EL. 29.6 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

CAD FILE: W14-6B1.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB14-1

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 333,559.7 E 1,550,068.1
DATE BEGAN 8/8/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.97 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	MD#1	8/18		8,10,7	OL		SILTY CLAY; medium dark brown, moist, stiff, moderate plasticity.
	MD#2	9/18		4,8,16			
5	MD#3	12/18		4,7,13	CL-CH		SILTY CLAY; gray-green-orange-brown, moist, stiff, moderate plasticity.
	S	42/42					SANDY CLAY; greenish gray, moist, stiff, moderate to high plasticity.
10							SANDY SILTY CLAY; greenish gray, moist, stiff, low plasticity.
	S	60/60					
15					SM-SC		CLAYEY SILTY SAND; gray brown, wet, medium dense, low plasticity.
							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: **.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB14-2

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 333,605.7, E 1,550,004.6
DATE BEGAN 8/8/88
DATE FINISHED 8/8/88
GROUND SURFACE EL. 30.67 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0					SW		GRAVELLY SAND; light brown, dry.
	MD#1	ND		6,6,9			SILTY CLAY; medium gray, moist, stiff, low to moderate plasticity.
	MD#2	ND		8,6,13			
5	MD#3	ND		3,6,10			
	MD#4	ND		7,10,13	CL		
	S	ND					SILTY CLAY; medium gray, with brown and light gray spots, moist to wet, stiff, low plasticity, pebbly.
10	S	ND					SANDY SILTY CLAY; light gray, wet, medium stiff, low plasticity.
					SM		CLAYEY SILTY SAND; light gray brown, wet, loose, low plasticty.
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 4096'6
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB14-2(MF21)

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB14-3

FIELD GEOLOGIST W. Hopkins
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 333,691.7 E 1,549,917.6
DATE BEGAN 8/10/88
DATE FINISHED 8/10/88
GROUND SURFACE EL. 30.3 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0					FILL		FILL: clayey silty sand; orange brown, moist, loose, low plasticity.
	MD#1	8/18		13,5,14	OL		SILTY CLAY; dark brown, moist, stiff, moderate plasticity.
	MD#2	9/18		6,7,14	CL		SILTY CLAY; medium gray brown, moist, stiff, low to moderate plasticity.
5	MD#3	11/18		5,12,16			SILTY CLAY; medium gray with brown and white spots, moist, stiff, low plasticity.
	S	42/42					
10					ML		CLAYEY SILT; medium to light gray, wet, soft, loose, low plasticity.
	S	60/60			SM		SILTY SAND; dark gray, wet, loose, low plasticity.
					ML		CLAYEY SILT; medium gray, wet, soft, low plasticity.
15					CL		SILTY CLAY; medium gray with brown spots, wet, stiff, low to moderate plasticity.
							TOTAL DEPTH 15 FEET
							8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 75 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB14-3(MF21)

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

NO BORINGS OR WELLS WERE DRILLED AT SITE 15

NO BORINGS OR WELLS WERE DRILLED AT SITE 16

NO BORINGS OR WELLS WERE DRILLED AT SITE 17

NO BORINGS OR WELLS WERE DRILLED AT SITE 18

APPENDIX I

SECTION 19.0 – SITE 19 BORING LOGS

DECEMBER 1988 QUARTERLY REPORT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 15 DECEMBER 1988

BORING NO. GB#29

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet
COORDINATES N 338,113.9 E 1,552,447.9
DATE BEGAN 8/10/88
DATE FINISHED 8/12/88
GROUND SURFACE EL. 9.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
0							Asphalt.
	#1	0/60			FILL		FILL: silty sandy gravel; dark brown, slightly moist, soft, gravels and sands are poorly sorted.
5	#2	0/60			GC		CLAYEY SANDY GRAVEL; dark gray, coarse, angular, moderately to poorly sorted.
10	#3	0/60					Gravel as above with silt and sand.
15	#4	0/60					
20	#5	0/60					GRAVEL; dark brown, hard, coarse, angular to rounded, with clay; gray brown, wet, soft.
25	#6	24/60		1.5	CL		SILTY CLAY; gray brown, moist, soft, plastic, pebbles.
30	#7	0/60					
35	#8	38/60		2.5–3.5			SILTY CLAY; medium brown, moist, very stiff, slightly plastic, minor sand.
40	#9	41/60		1.5–3.0–3.5			SILTY CLAY; medium brown to gray brown, dry, very stiff, slightly to non-plastic.
45	#10	0/60					
50	#11	0/60					
55	#12	13/60		2.5–1.5			SANDY CLAY; green brown, moist, very stiff, slightly plastic, associated coarse sand and minor gravel.
60	#13	38/60		2.5–3.0–3.0			
65	#14	55/60		3.0–2.5–3.0			SILTY CLAY; medium brown – gray brown, dry, very stiff, slightly to non-plastic.
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB29.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#29

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 338,113.9 E 1,552,447.9
DATE BEGAN 8/10/88
DATE FINISHED 8/12/88
GROUND SURFACE EL. 9.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
70							SILTY CLAY; medium brown minor gray, moist, soft, plastic, minor fine sand.
	#15	11/60		1.0			
75	#16	0/60					
80	#17	0/60			CL-CH		
85	#18	0/60					
90	#19	0/60					
95	#20	0/60					
100	#21	23/60					SILTY CLAY; medium brown, wet, soft, plastic, minor coarse, angular, gravel fragments.
105	#22	0/60					
110	#23	0/60					
115	#24	0/60					
120	#25	31/60		1.0	CL		SILTY CLAY; medium brown – gray brown, moist, stiff, slightly to moderately plastic.
							SANDY CLAY; brown gray, moist, stiff, slightly plastic.
125	#26	60/60		3.0-4.0			SILTY CLAY; blue gray, moist, very stiff, slightly plastic, grades to brown gray.
130	#27	24/60		2.5-2.0			
135	#28	52/60		2.5			
140							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF_GB29.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#29

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 338,113.9 E 1,552,447.9
DATE BEGAN 8/10/88
DATE FINISHED 8/12/88
GROUND SURFACE EL. 9.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
140	#29	57/60		3.0–4.0	CL		SILTY CLAY; gray brown, moist, very stiff to hard, slightly to non-plastic.
145	#30	60/60		4.0–3.5			CLAY; bluegray, predominantly dry, very stiff to hard, slightly plastic.
150	#31	50/60		3.0–4.0			
155	#32	55/60		4.0	ML		CLAYEY SILT; gray brown, dry, hard, non-plastic, trace fossil fragments.
160	#33	0/60			CL		SANDY CLAY; medium brown, moist, soft, non-plastic.
165	#34	60/60		2.0–4.0			SILTY CLAY; gay-green, moist, very stiff to hard, slightly plastic.
170	#35	57/60		3.5–3.0			
175	#36	45/60		3.0–2.0			CLAY; medium to dark gray, predominantly dry, very stiff, non to slightly plastic.
180	#37	0/60					
185	#38	34/60		2.5–3.5			GRAVELLY SANDY CLAY; medium gray, moist, very stiff, non-plastic. SILTY CLAY; gray-brown, moist to dry, stiff, slightly plastic.
190	#39	60/60		4.5–3.0			SILTY CLAY; gray, minor brown-gray, prdominantly dry, stiff to hard, slightly to non-plastic.
195	#40	48/60		2.5–4.5			SANDY CLAY; mottled gray brown, predominantly dry, very stiff – hard, slightly to non-plastic.
200	#41	58/60		4.5			SILTY CLAY; light to medium gray, dry, hard, non-plastic.
205	#42	22/60		4.0–4.5			SILTY CLAY; dark gray, dry, hard, non-plastic.
210							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: MF-GB29.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. GB#29

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 250 feet

COORDINATES N 338,113.9 – E 1,552,447.9
DATE BEGAN 8/10/88
DATE FINISHED 8/12/88
GROUND SURFACE EL. 9.7 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	MEASURED CONSISTENCY (TSF)	USCS SYMBOL	PROFILE	DESCRIPTION
210	#43	0/60			CL		SILTY CLAY; green gray to brown, dry to moist, stiff, non to slightly plastic.
215	#44	0/60					
220	#45	0/60					
225	#46	25/60		4.5–2.5			
230	#47	59/60		3.0			SILTY CLAY; brown gray, predominantly dry, stiff, non to slightly plastic.
235	#48	60/60		3.0–2.5			
240	#49	60/60		4.5–4.0			SILTY CLAY; light to medium gray, dry, very stiff, non–plastic.
245	#50	50/60		4.5–2.5			SILTY CLAY; medium gray, dry, very stiff–hard, non–plastic.
250							TOTAL DEPTH 250 FEET 4–1/2" diameter boring
255							
260							
265							
270							
275							
280							

DRILLING CO.: Water Development Co.
DRILLING METHOD: Mud Rotary

SAMPLER: 5' Core Barrel Wireline Sampler

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

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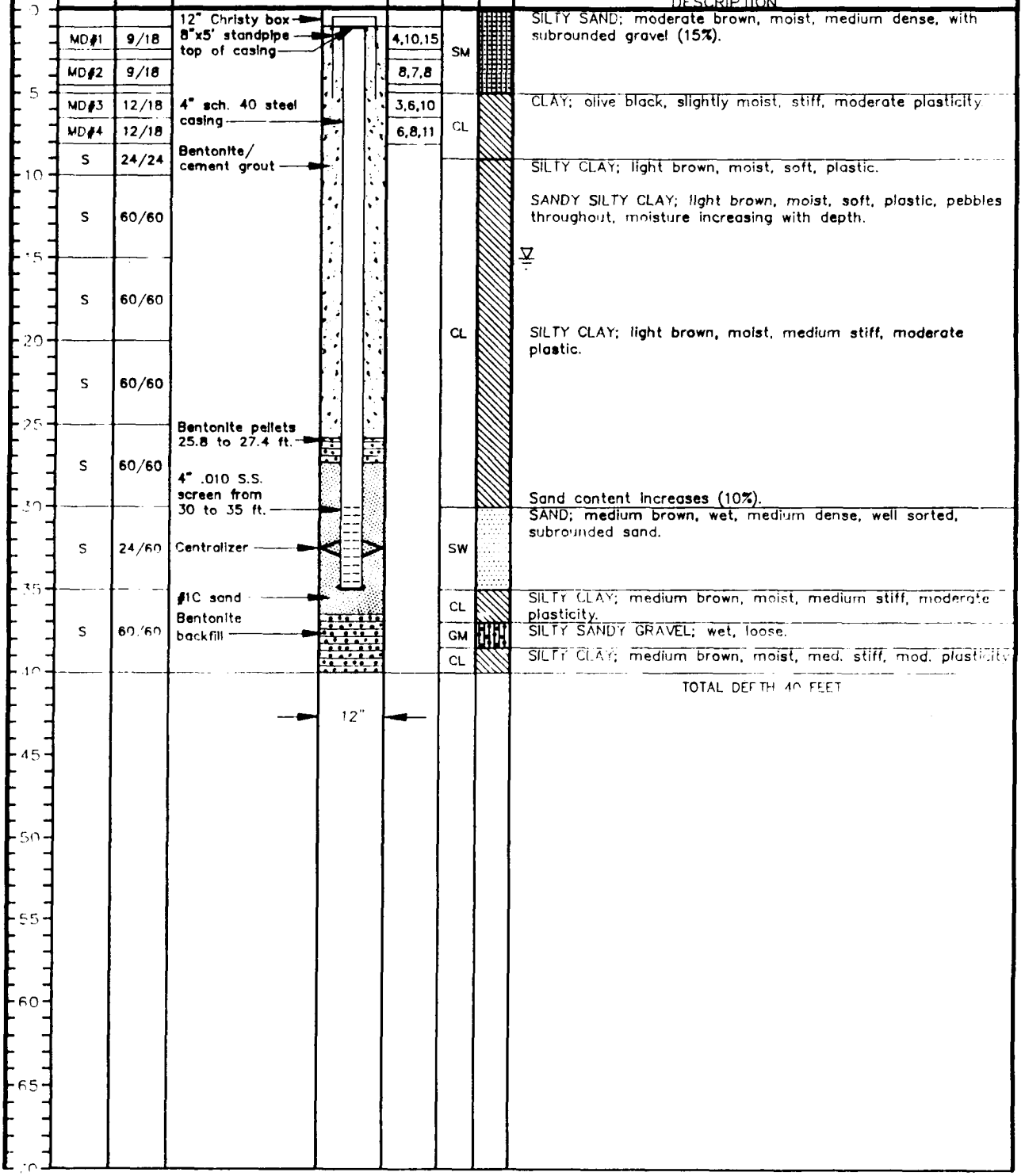
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W19-1(A)

FIELD GEOLOGIST J. Hadsall
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 40 feet

COORDINATES N 338,105.4 E 1,552,444.2
DATE BEGAN 7/26/88
DATE FINISHED 7/27/88
GROUND SURFACE EL. 9.78 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

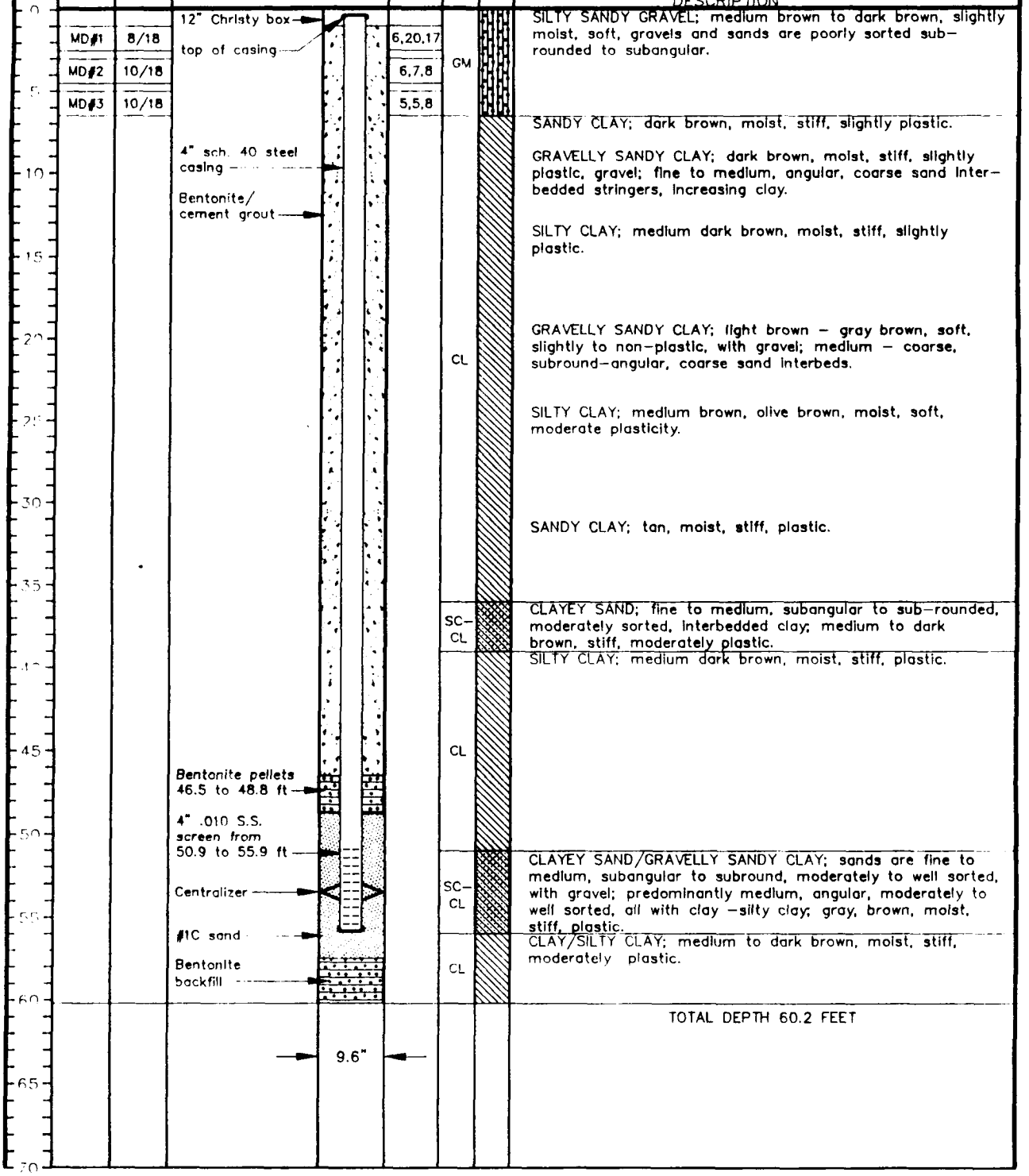
AutoCAD FILE: W19-1A.DWG

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W19-2(B1)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY B. Manchon
TOTAL DEPTH 60.2 feet
COORDINATES N 337,975.5 E 1,552,511.4
DATE BEGAN 8/29/88
DATE FINISHED 8/29/88
GROUND SURFACE EL. 10.3 ft



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W19-2B1.DWG

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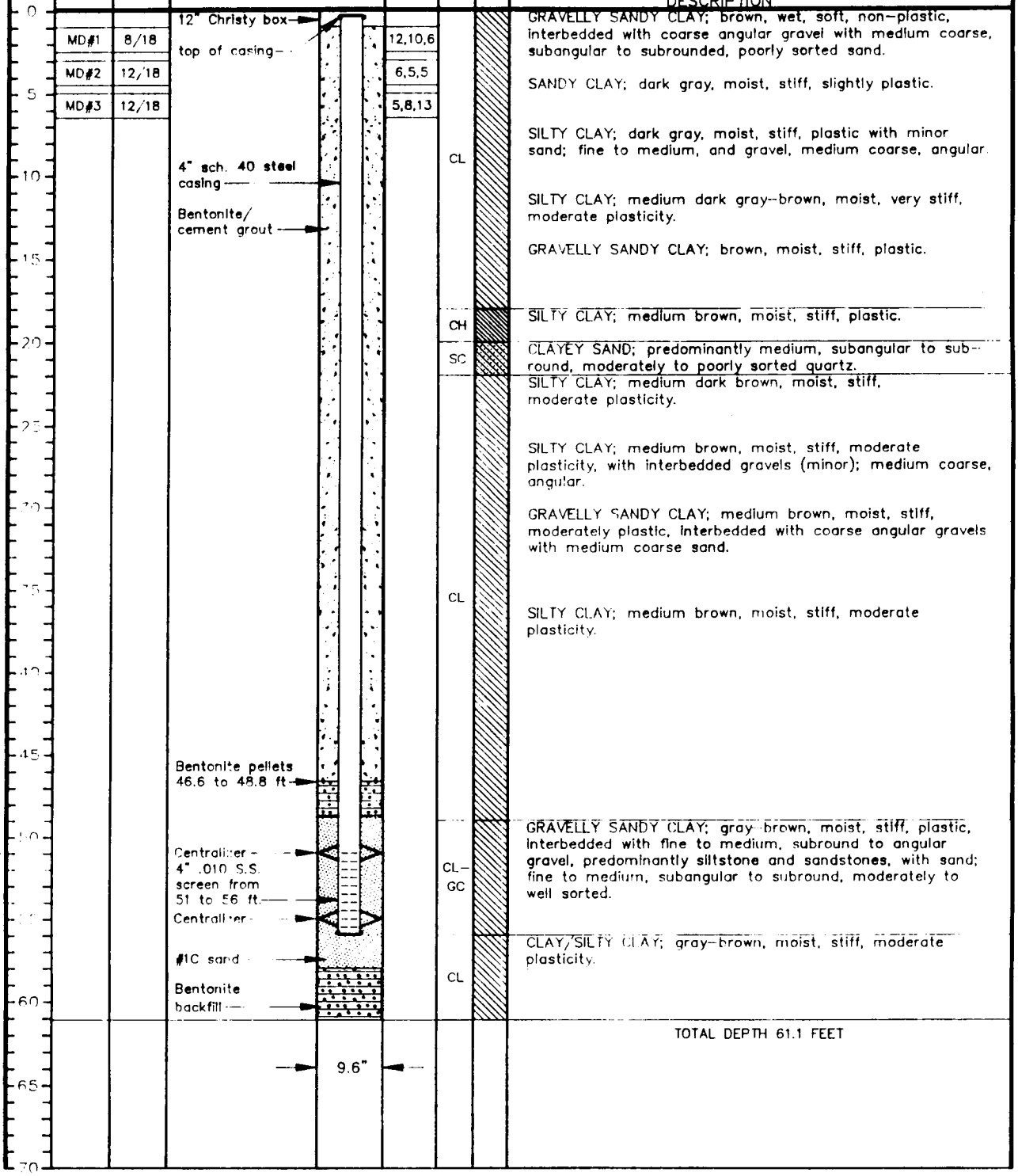
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W19-3(B1)

FIELD GEOLOGIST D. H. Cox
EDITED BY J. Hadsall
CHECKED BY B. Manchon
TOTAL DEPTH 61.1 feet
COORDINATES N 338,304.3 E 1,552,227.1
DATE BEGAN 8/31/88
DATE FINISHED 9/1/88
GROUND SURFACE EL. 8.2 ft



DRILLING CO.: Water Development Co.
DRILLING METHOD: Air Rotary

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W19-3B1.DWG

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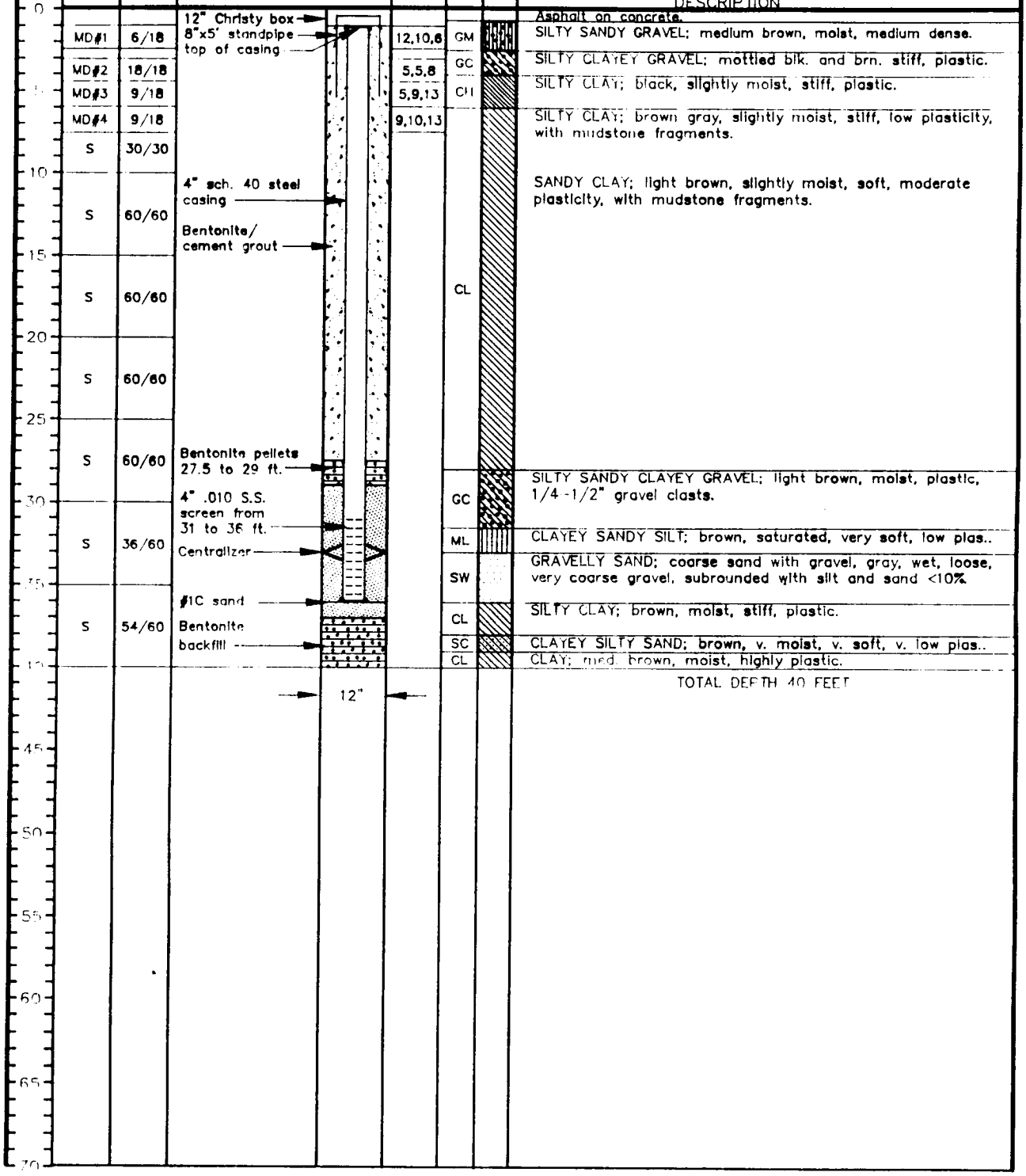
SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. W19-4(A)

FIELD GEOLOGIST J. Hodsall
EDITED BY B. Manchon
CHECKED BY B. Manchon
TOTAL DEPTH 40 feet

COORDINATES N 338,292.7 E 1,552,236.2
DATE BEGAN 7/28/88
DATE FINISHED 7/28/88
GROUND SURFACE EL. 8.25 ft.



DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: W19_4A.DWG

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB19-1

FIELD GEOLOGIST G. L. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 337,530.8 E 1,552,686.9
DATE BEGAN 9/15/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 10.73 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0							
	MD#1	8/18		3,5,9	SC		CLAYEY GRAVELLY SAND; reddish brown, non-plastic.
	MD#2	11/18		4,7,12	OH		SILTY CLAY; brownish black, moist, stiff to very stiff, moderate to high plasticity, trace pebbles and cobbles.
5	MD#3	11/18		5,7,8			
	S	36/42			CL		SANDY SILTY CLAY; dark yellowish brown, wet, stiff, medium to low plasticity, trace of pebbles. ▽
10	S	0/60			GP		SANDY GRAVEL; dark yellowish brown, wet (saturated), loose.
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB19-1(MF21)

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB19-2

FIELD GEOLOGIST G. L. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 337,552.0 E 1,552,689.2
DATE BEGAN 9/15/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 10.39 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	MD#1	10/18		3,5,10	SC		SILTY CLAYEY SAND; moist, soft, loose, non-plastic, with gravel and pebbles.
	MD#2	9/18		5,9,11	OL		SILTY CLAY; dark brownish black, moist, very stiff to hard, low to moderate plasticity, some gravel and pebbles, trace cobbles.
5	MD#3	7/18		5,6,4			SILTY SANDY CLAY; dark yellowish brown, damp to moist, stiff, low plasticity.
	S	8/42			CL		
10	S	10/60			SM		SAND; dark yellowish brown, wet, soft, loose, non-plastic, medium to fine, little silt.
					GM		SILTY CLAYEY GRAVEL; dark yellowish brown, wet, soft, loose, non-plastic, some fine to medium sand.
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB19-2(MF21)

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SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB19-3

FIELD GEOLOGIST G. L. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 337,574.1 E 1,552,659.1
DATE BEGAN 9/15/88
DATE FINISHED 9/15/88
GROUND SURFACE EL. 10.65 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	MD#1	10/18		4,3,4	SC		SILTY CLAYEY SAND; moist, red-orange brown, soft, non-plastic, some gravel.
	MD#2	10/18		4,7,8	OL		SILTY CLAY; dark brownish black, moist, very stiff to hard, low to medium plasticity, some gravel and pebbles.
5	MD#3	9/18		3,5,4			
	S	24/42			CL		SILTY SANDY CLAY; dark yellowish brown, damp to moist, stiff, low plasticity.
10	S	0/60					
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB19-3(MF21)

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB19-4

FIELD GEOLOGIST G. L. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 338,094.1 E 1,552,473.9
DATE BEGAN 9/14/88
DATE FINISHED 9/14/88
GROUND SURFACE EL. 9.86 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER (PER 6")	USCS SYMBOL	PROFILE	DESCRIPTION
0	MD#1	11/18		4,10,13	SC-GC		CLAYEY SAND; dark orange-red brown, moist, hard, non-plastic, pebbles and cobbles.
	MD#2	7/18		6,6,8			
5	MD#3	10/18		7,9,13	OL		SILTY CLAY; brownish black, moist, very stiff, low to medium plasticity.
	S	42/42					SANDY SILTY CLAY; dark yellowish brown, moist, stiff, low to non-plastic.
10	S	48/60			CL		SANDY SILTY CLAY; dark greenish gray, damp, very soft.
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

AutoCAD FILE: SB19-4(MF21)

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS

BORING NO. SB19-5

FIELD GEOLOGIST G. L. Williams
EDITED BY J. Hadsall
CHECKED BY J. Hadsall
TOTAL DEPTH 15 feet

COORDINATES N 338,087.8 E 1,552,450.3
DATE BEGAN 9/13/8
DATE FINISHED 9/14/88
GROUND SURFACE EL. 10.09 ft.

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY (IN.)	WELL SUMMARY	BLOWS ON SAMPLER PER 6"	USCS SYMBOL	PROFILE	DESCRIPTION
0	MD#1	8/18		6,7,15	SC-GC		SAND; orange brown, moist, loose, trace clay with cobbles and pebbles.
	S	0/30					
5	MD#2	11/18		ND	OL		CLAY; brownish black, moist, very stiff, medium plasticity.
	S	42/42					SILTY CLAY; dark yellowish brown, moist, soft, low to moderate plasticity.
10	S	60/60			CL		
15							TOTAL DEPTH 15 FEET 8" diameter boring
20							
25							
30							
35							
40							
45							
50							
55							
60							
65							
70							

DRILLING CO.: Water Development Co.
DRILLING METHOD: CME 55 Hollow Stem Auger

SAMPLING METHODS: MD=California Modified
S=Split Barrel

PROJECT NO.: 409616
CLIENT: Moffett Naval Air Station
Moffett Field, California

IT ...Creating a Safer Tomorrow

SEE LEGEND FOR LOGS AND TEST PITS
FOR EXPLANATION OF SYMBOLS AND TERMS